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Table of Contents, page 53

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The Charlotte Medical Journal.

VOL. XXIX CHARLOTTE, N. C., JUNE 1906. No. 1

The Annual Oration: Nineteenth Century Progress and Twentieth Century Problems.*

By Dr. Jas. M. Parrott, Kinston, N. C.

This is an age of progress. Perhaps during no period of history has man's permanent improvement been so marked as during the last decade. This development does not belong exclusively to any country or vocation. It is the one theme which is common to the various pursuits of practically all mankind. Standing by the blacksmith's door you see it in the flaming forge, you hear it in the bellows' roar; it is the song sung by the shrill, quick whistle of the locomotive rushing through our rugged mountain gorges, bearing the rich harvest from the fertile plains of the east to distant lands; you hear it in the harsh cry of the factory whistle, calling the laborers to work; it is the note of harmony which runs through every song of the farmer, and finds a responsive symphony in the answering call of every profession.

The march of the nations is toward the permanent upbuilding of the human race. I rejoice in the spirit of progress of the twentieth century. It heralds the breaking of another and a brighter day. I am not one of those who mourn because they were not born yesterday. I regret that the period of my existence cannot extend over into, yea, even cover, tomorrow. I rejoice that I live today. I have no patience with the conscience lashed, despairing Macbeth, when he exclaimed:—

"Out, out brief candle!
Life's but a walking shadow;
it is a tale
Told by an idiot, full of sound and fury
Signifying nothing."

I rather prefer that other sentiment, which has been an inspiration for years past, and doubtless will be for ages yet to come—

"Life is real, life is earnest,
And the grave is not its goal,
Dust thou art, to dust returneth,
Was not spoken of the soul."

The medical profession always has kept step with the march of other vocations, and the early years of this century finds it abreast with the most progressive. Dr. Holmes pointed out the fact that a great upheavel in any sphere of life, whether it be political or otherwise, will affect every other. The practice of medicine is not an exception. When Plato was teaching the Athenian youths in the market place, Hypocrates was also busy teaching and elucidating the great medical facts, which gained for him the title "Father of Medicine." When the echoes of the guns of Marengo thundering Napoleon's victory rose over the mountains of Northern Italy, and died away on the sunny plains of Southern France, the suffering world heard with gladness the announciations of Bichat in his "Researches on Life and Death." Dr. Rush and three other compatriots left their busy work of curing the sick to participate in the deliberations of our first colonial congress.

When the revolutions incident to the re-establishment of the second empire of France were bathing the streets of Paris with blood, the immediate predecessors of Pasteur were laying the foundations of modern medicine, and as the star of Napoleon the Third went down to its gory grave, the apostle of the present scientific school of medicine rose in resplendent glory. With the burden of the sorrow of his people resting heavily on his heart, and while the agonizing cries of Parisian neighbors were yet ringing in his ears, Pasteur indicated the means by which the sick of future ages could be relieved, and pointed out the way wherein we could enjoy more fully than ever before the great transcendent blessings of this civilization. These historical illustrations can be paralleled in every age. So closely is the welfare of our profession identified with that of man its history practically tells the story of human progress.

Mankind is under incalculable obligations to the medical profession. Within the last century, even within the memory of the living, the medical man has practically eliminated pain, and has brought the methods of aseptic surgery to a point which well-nigh approaches perfection. Utilizing recent bacteriological discoveries as a foundation upon which to build his super-structure, the surgeon has erected an edifice, the like of which can scarcely be found among the works of man. Within recent years the specialties of medical practice have been wonderfully developed; speech has been restored to many mutes, ears once deaf now hear with ease the sweet harmonies of nature, and eyes once dim or abandoned to permanent darkness now see the beauties of God's handiwork. In the last quarter of the century the surgeon has taken the crutch from the cripple and the lame, "has restored lost functions to organs and glands," has let in the light of reason to the insane, has heard and heeded the cry of those on whom the deadly hand of malignant growths has

*Read before the recent meeting of the N. C. Medical Society at Charlotte, N. C.

69462

been laid, and has restored them to health and happiness. Has explored the abdomen for penetrating wounds and infections. He has cut away tumors from glands and cavities, invaded joints, oresected viscera; he has eliminated blood poison, walked almost at liberty through the brain and cord, reduced the mortality of all surgical diseases, and has actually entirely removed the death rate of many.

Inter-linked with this progress in surgery and keeping step with it, we note an equal improvement in the strict practice of internal medicine. Within the century a general practitioner, a North Carolinian he was, has invented and taught us the use of the hypodermic syringe; while another co-laborer, and another North Carolinian, it is said, perfected the clinical thermometer—the two most useful and necessary instruments ever contributed to the science and art of healing. Since the beloved blood-stained Stars and Bars were furled forever at Appomattox, the practitioner of medicine has gradually driven back many of the foes of human health, and today typhus fever, scurvey, and a half dozen other diseases, which annihilated whole cities in the past, are known only to the students of medical history. Since the fall of the storm-cradled nation the medical forces have been hurled daily and vigorously against small-pox, scarlet fever, diphtheria, yellow fever, typhoid fever, tuberculosis, malaria, tetanus; in fact, every disease, and the batallions of nearly all are wavering, yea, those of most of them are in full retreat. Mortality of the wounded in the Civil War was fifty per cent. So great has been the improvement in medical affairs since that period the death rate of the wounded in the Japanese army, in the recent war with Russia, was practically nothing. Within a few years the fatality of malaria has been enormously reduced. The mortality from scarlet fever has fallen lower and lower, until in one State, where it formerly raged with great severity, it is estimated that over four hundred lives are now saved annually from it. Prior to 1894 diphtheria was considered one of the greatest curses to which human flesh was susceptible. Since Berhing discovered antitoxin its fatality has grown less and less, and recently when contemplating its results Turner, in an ecstasy of delight, declared "No child ought to die of diphtheria." The frequency of typhoid fever within the last few years has been reduced fifty per cent. in Lawrence, sixty in Chicago, and literally wiped out in Munich. This is the story told of it the world over where the advice of the doctor, the sanitarian, is heeded. The death rate from tuberculosis in New York is now thirty per cent. less than seven years ago, and this is an index to conditions in the country at large. In the 17th and 18th centuries the world mortality was fifty per one thousand, and sometimes it reached in certain centers as high as seventy. In London, the largest city in the world, it was only seventeen in 1902, while the average for all civilized countries was perhaps lower even than this. Since the close of the eighteenth century over eleven years have been added to the average span of human life; later statistics show an increase of seven years since 1880. Wonderful, these, are they not!

Now answer me lawyer, merchant, farmer, manufacturer, to whom are you indebted for accomplishing these things? Is it the minister? No. Is it the philantrophist? No. Is it the capitalist? No. Well, answer me then, who? I will tell you. It was and is the surgeon, the clinician, the microscopist combined and harmonized in one.—that thoughtful, painstaking, humanity-loving individual over there. You know him, for he held you in his arms when the light of day first fell on your face, he sat by your bed-side and gently nursed you back to health when disease had laid its hand upon you, he it was who shed an honest tear when your loved one left you for the other shore. He is the one who will stand by you and comfort you as you fall in your long, last sleep. You recognize him now, I know you do, for no other fulfills this true, real description but this one, and he is—your doctor.

In an hurried manner I have pointed out several of the beneficial results of modern medical progress. We should strive to do at least as much for the profession and humanity as did those who have preceded us. In contemplating the work which lies before us, one is almost staggered by the enormity of the task. It is not my purpose to discuss all the problems which are awaiting our solution. There is one certain fixed fact in medicine, which, in importance, stands pre-eminent above all others, and that is that the four hundred and fifty-one thousand deaths annually in the United States, including the eight, thousand eight hundred deaths yearly in North Carolina, from transmissible diseases, can be prevented. Pasteur declared some years ago "It is in the power of man to make all infectious diseases disappear from the face of the earth." No one well informed denies this, and every thoughtful person agrees that it should be done.

There is and has been for some time an actual increase in the frequency of renal, heart affections, and malignant growths. Without question we have failed, utterly and disastrously, to make even the slightest

impress on pneumonia. Those conditions deserve our most serious consideration, and I pass them by because of lack of time to discuss them, and not because I consider them of no consequence. There are three great dangers to public health, which because of their very great overshadowing importance merit special and emphatic discussion. For the country at large I would say they are pneumonia, tuberculosis and alcohol; for our State I would substitute typhoid fever for the first mentioned.

There are only four or five deaths in North Carolina from hydrophobia annually. Men, however, stand in mortal dread of this disease, and yet they pass quietly by with scarcely a comment when typhoid fever is announced, while as an actual fact there are in round numbers twelve hundred and fifty deaths in North Carolina each year from this affection. This means a great loss to our State and represents thousands of cases of sickness. The mortality alone of enteric fever means a money loss to North Carolina of nearly a million and a half dollars annually—a greater sum than is expended for our public schools each year. Thanks to our health laws and our well established rules of health, the number seems to be growing smaller, but the shame of it is that there should be even a single case of this disease in North Carolina at all. Typhoid fever can be prevented and it should be. It would be a comparatively easy matter to wipe it out from our State entirely. It has been driven from crowded cities, why not from North Carolina. It is our duty as guardians of public health to arouse the public mind to a realization of so doing. Once the people see their duty, and see it clearly, it will be done.

One out of every four deaths in the United States is due to some form of tuberculosis. Over two hundred thousand of our citizens cross over the River each year from this disease. Do you grasp the enormity of these figures? do you really appreciate what they mean?

The battle of Sharpsburg was one of the bloodiest in the series of the terrible fights of the Civil War. On that field both armies lost over thirty-eight thousand, killed and wounded. For three days Lee and Meade struggled for the mastery at Gettysburg, and when the gigantic fight was over both armies had lost, killed and wounded, nearly fifty-five thousand, making a total loss in both battles of ninety-three thousand. Add to this number all the killed and wounded on both sides of the entire Spanish-American war, and the total scarcely exceeds one-half as many as die each year in the United States from tuberculosis. From a financial standpoint this loss is stupendous. These two hundred thousand deaths means a loss of two hundred and thirty million dollars, a sum half as great as needed to meet the enormous annual expense of our National Government. I am sure that the loss entailed by the sickness of those who recover will bring the total up to three hundred and twenty-five million annually—think of it, three hundred and twenty-five million dollars, a yearly tribute for our folly and stupidity. We lose yearly in North Carolina nearly twenty-five hundred from this malady. Valuing human life by money, as we are sometimes wont to do, this mortality means an annual loss of nearly three million dollars. Mind you, this is from the cases which prove fatal and does not include those which recover. I am sure that our State loses every year four million dollars, at least, because of tuberculosis. If this sum were added to the public school fund it would place a splendidly equipped graded school in reach of every boy and girl in North Carolina, and have a sum left over sufficiently large to build and equip quarters for every insane person now out of our crowded asylums, every orphan not now in an orphanage, every deaf and dumb and blind person for whom there is no provision. All medical authority bears out the statement that tuberculosis is a transmissible disease due to a specific organism, that positively and unquestionably it is not necessarily hereditary, that over eighty per cent. of cases are curable in the early stages, and that it can be prevented. It is the duty of the State to lend a helping hand in the warfare we are waging against this menace to our health. Child labor in the mills for long hours is a very powerful factor in producing tuberculosis and must be prohibited. Intemperance must be fought, and a vigorous crusade inaugurated against everything which tends to lower the vitality of the human economy if we would succeed. This is a gigantic struggle, but one which we have every assurance of winning if we but push our efforts, laboring to this end. Doctor, reiterate it everywhere that tuberculosis causes twenty-five per cent. of our deaths, is curable and can be prevented. In an hour of most intense hatred Hamilcar led Honebal to the altar and there had him swear everlasting hatred to the Roman empire. Let us go to the altar of our duty and in no uncertain terms, borrowing if need be the voice of the Thunders that the world may hear, them resolve, that since tuberculosis can be, it shall be wiped off the face of the earth!

Sometime ago a friend of mine asked me why the medical profession opposed patent medicines. There are several reasons, but chief among them is the fact that the pro-

longed and indiscrimate use of those which contain stimulants, and most of them do, has a tendency to arouse latent desires for excitants, thus making successful resistance to after temptation much more difficult. We know that every year since 1898 doctors have used less and less opium and cocain in their practice, while the world consumes five hundred per cent. more opium and three hundred per cent. more cocain annually than ever before. This enormous increase spells ruin for hundreds of men, women, and even children in our country each year. Our annual drink bill amounts to fourteen hundred million dollars—a sum greater by two hundred and twenty million than the total amount spent for bread, meat and education. It is out of my present role to discuss the moral and social aspect of the question. Let us look at the medical side of the case. Broadbent truthfully declared that while deficient food, over-work, foul atmosphere and alcoholic excesses were the principal factors in the progress of tuberculosis, the greatest and most potent is alcohol. We all know that this latter clause is true of all transmissible diseases. Intemperance is more deadly in its effects on the human system than tuberculosis. A prominent English writer, in referring to drinking, says, "Not only is it often inherited, but organic ailments are by it originated, and organic weaknesses crystalized into disease. The degenerations of age are anticipated and precipitated by alcohol, and the dram-drinker is thus sure to have a shortened life." My friends, I tell you that the administration of intoxicants, whether it be in the shape of milk punch or Peruna, is a dangerous thing and one not to be done lightly. It is possible that the seed of a future drunkard may be planted then. It has been my unpleasant duty to witness the death and burial of a widow's only son and lone support. When the light of that poor woman's life was extinguished and densest winter's darkness crept into her soul, when that innocent voice was hushed forever, and those hands which promised to battle for the gentle mother in the stern conflicts of life were stilled in death, when kind friends gently bore the boy to the little burying ground on the hill side over yonder and lowered his body into its grave to sleep forever beneath the blue-bells and violets, within the call of the song-birds of his youth, a feeling of sorrow and sadness swept over my soul, unutterably, indescribable. My neighbor between his tears declared that it was the saddest sight on earth. Not so, my friends, not so! Hear me! A scene like that is not more distressing to the human heart than to see one staggering and reeling through life to an early death; Hope gone! Faith broken! Ideals forsaken! A soul damned and lost forever! I believe, and I say it with forethought, that ten gallons of liquor would meet all the annual requirements, in a medical way, for the entire State of North Carolina. It is absolutely unnecessary to prescribe it, except for the aged and those previously addicted to its use, and then not in every instance. "Ah," says one full of pseudo-scientific ideas and false hypothoses which he, poor ignorant man, thinks are true, "What about alcohol's place in Materia Medica?" Bosh! Rot! Alcohol should have no necessary place anywhere. I am sick of the discussion as to the food value of liquor. Its therapeutic indications are but precious few. It certainly has no medical virtue, except in the conditions named, which cannot be duplicated by other drugs less dangerous in tendency. Let us, as medical men, sound the tocsin of war against whiskey drinking and fight it to the death.

In the gigantic struggle of the hour, in the preparation for the Herculean tasks of the future, nothing can afford greater inspiration than the critical study of the lives of the "Fathers." The days of the doctor of the Old School have passed, sad to relate. He had his faults, and great ones, too, of course he did, but his virtues were numerous, and to these we should turn again and again until their hallowed precepts are our own. The doctor of the Old School possessed that potent charm—Sympathy and Love. I pity the young doctor who has been denied the privilege of sitting at the feet of the typical old-time family physician. He was a citizen of high ideals. He taught practically the Divine lesson—Brotherhood of Man. This he ever held as his "vision splendid," and he followed its beckonings as steadfastly as the mariner follows the north star. He listened to the voice of duty, this cry of the soul's ideal, bidding him to battle for humanity's sake, and he succeeded because he harkened unto its call.

Sometime ago an excursion boat on one of the great lakes caught fire. The panic stricken pleasure seekers crowded to the front of the vessel. Though every possible effort was made to stop the progress of the flames they spread rapidly; there was only one possible way to safety for the passengers, that by quickly docking the steamer. John Maynard, a sturdy seaman, was placed at the helm. Both he and the captain knew and realized that the lives of the excursionists depended on him. Fanned by a gale the flames rapidly eat their way into the vitals of the ship. Firery tongues began to leap from every crack, and great volumes of densest smoke rolled around the old seaman; the fire grew rapidly in fierceness and

intensity. It swept around and enveloped the masts; with an awful crash the rigging fell! The captain rushed to the side of the ship and cried "John Maynard, art thou there?" and the husky-voiced seaman answered "Aye, aye, sir." A sudden gust of wind drove the fire further into the ship, the oil tanks were ignited and exploded. Great flame-sheets and burning timbers were hurled on high, women fainted and men grew sick with fear! From the bridge the captain again cried, "John Maynard, art thou there?" and back over the waters, over the din of the conflagration, the voice of the old hero was heard still holding out a ray of hope to all "Aye, aye, sir," and the ship sped on. The wharf is reached, what joy to those passengers! Presently some one remembers the old seaman. The cry is raised, "Where is John Maynard?" The captain shouts, "John Maynard, John Maynard, John Maynard," but no answer comes, for he, who but a few minutes before, was holding, with burning hands, the vessel to its course, was now wrapped in the embrace of death. The medical profession in North Carolina has produced many John Maynards.

Hark! what cry is that piercing the midnight air, striking terror to the strongest of human hearts? "Help, help, Oh God help me, my baby is dying, the doctor, the doctor, go for the doctor!" Out in the midnight dashes the messenger, over hills, through valleys, on, on he speeds to the distant village, down its lonely street, straight to the little cottage on the hill-side where flickers the mid-night lamp—a beacon light to those seeking health. The sound of the approaching horseman falls upon the sensitive ear of the physician. Self is at once abnegated and forgotten. He hears the human call? He springs from bed; half dressed, ill prepared to face the raging storm, he begins his perilous journey. Though the winter's blasts are raging, he cares not for their icy coldness, for is not a life at stake? He realizes the necessity of the greatest haste. On he rushes, plunging swiftly through the darkness, galloping his faithful horse here in the opening, rapidly picking his way there among the fallen branches, through roaring torrents, up steep hills, never pausing, onward, onward to his patient! Gently, tactfully, and swiftly he glides into the sick chamber; He realizes in a second the true situation. By the side of the little sufferer he drops, without hesitation, though knowing full well the danger of such a procedure, he places his mouth to the mucous-plugged tube in the child's throat. It is opened, the pure air inflates the little lungs again. Artificial respiration is begun. All through the lonely night the physician labors, and at last when the gray dawn of approaching morning breaks in gladness over the earth, dispelling the storm of the night, joy reigns supreme in that home—the baby is safe again. But, sad to relate, ten days later this grand, good man, the John Maynard of that incident, gave up the ghost, a victim to the dreadful disease diphtheria, which he contracted from the baby on that eventful night. Dr. Wood, for the rescuer was none other than he, was a hero in the highest sense, and died a hero's death. "Greater love hath no man than this that he lay down his life for his friend."

Abou spoke more low,
But cheerily still; and said "I pray thee, then
Write me as one who loves his fellowmen."
The angel wrote and vanished. The next night
It came again with a great awakening light,
And showed the names whom love of God had blest,
And lo! Ben Adhem's name led all the rest.

We hear much in this day, of Commercial Development, of what men call Hustle, Progressiveness, Business Methods in Professional Life. I suppose these are well, but ah, how much, how much of life's greatest and richest joys are we, who are chasing the dollar, missing when we fail to follow in the foot-steps of the world's grandest nobleman, the medical John Maynard? Oh, young man, young practitioner, cling closer, closer, yea closer to your soul's ideal! You cannot afford to break faith with the "visions of your better hours" even to save your life! As sure as there is a God you cannot succeed in the very highest without sympathy, without the broadest Christ-like love!

Mankind the world over is undergoing great intellectual development. Sentiment is rapidly giving way to common sense, the arts are held in higher esteem than in any previous age, and science is beginning to be estimated by its true value. People realize as never before the great importance of the medical profession, in its relations to, and the role it plays in civilization. Our vocation is more alert than in any period of its history. While, thank God, it is still devoted to its ideals and its altruistic ideas, it has caught the progressive spirit of the hour, and is rapidly making toward its goal. It is wise that we cling to the inspiring memories of the past; we must take from it those things which are useful for the present and the future; we must prune from the products of this day that which is worthless, and save for tomorrow that which is permanent and fadeth not away. Let us hold steadfastly with one hand to the elevating character traits, the "visions splendid" of the fathers, and the many bits of knowledge

which have come to us as a rich legacy from the glorious past, while with the other let us reach out and behold the hustling, progressive strenuosity of the twentieth century, bring the two together, combine them in one striving thus to attain unto an ideal of which we have dreamed, but not yet realized; hoping, trusting that they may be harmonized eventually to the betterment of humanity, and to the honor and glory of the great profession to which we belong.

Once on a Time There was a Man.*

An Address to the Profession by T. S. McMullan, M. D., Hertford, N. C.

Mr. President, Members of the Medical Society of the State of North Carolina, Ladies and Gentlemen:

The theories of human knowledge and of human perception have been varied and the causes of many and anxious disputations since metaphysics became the study of mankind. The evolution of this science has been attended by great earnestness and marked ability, and its discussion has sometimes provoked a bitterness almost akin to malignity. From the idealism of Plato, who taught the doctrine of innate knowledge supplemented by human reminiscence, who believed in the existence of eternal forms, and ideas in some supra-mundane sphere, and that these were the arch-types of all the senses perceive upon the earth; that these types were perfect and unchangeable, and that every human soul in its prenatal existence saw these arch-types and knew the objects seen on earth by their likeness to the supra-human ideas; the phenomena, appearances and objects of the senses being to the early Greeks and Mediaevalists not real, but to those who followed this teaching as the shadows of eternity upon a lighted wall; from the cosmothetic idealism of Descartes and Kant, and later, Malebranche, who taught the problematical existence of things analogous to that attributed to the perfect and eternal forms, down to the common sense and sensualism of John Locke, whose theories have survived in modern intellectualism as the philosophic guide, who saw in an idea "Whatever is the object of the understanding when a man thinks," I say from all these different logics, from all these higher speculations and problematical beliefs, the scientific world has been brought to believe, that while all things are material, all phenomena and appearances are real, all objects can be apprehended by the physical senses, and that all sensations as joy and grief, and pain and pleasure are not imagination, but the reflections on our intellects of physical circumstances and environments, yet our thoughts and perceptions and ideas do have cast upon them the flash-light of an eternal world, and whether this influence be, as Plato taught, of a prenatal nature, or whether it be the present whisperings of those invisible spirits which hover about poor fallen man, the belief prevails, though many doubt, that in every mind there is a sub-consciousness of things immortal, that in each heart there is a spiritual ideal, that in each soul there is a link binding it to eternity, and that in the lives of men ofttimes the gates are lifted and there flits across the brain a dim and hazy blush that without consciousness leaves behind some vague and subtle impress;

> Like blushes of the sky at night,
> When from some unknown, unseen height,
> A fiery meteor falls.

How often have we known it; how oft in trials and vicissitudes an unseen help appears; how oft in agony and woe supernal strength is given; when perils come and dangers lurk about, how oft the power comes to bear men up beyond their mortal might. There is a blending of the ideal and the material; the history of the world stamps this as truth; experience a witness that it is so. We cannot understand these subtle communings, neither do we know the mysteries of life; we only believe that in the lives of men they come, sometimes to bear them up, sometimes to note their doom; sometimes to cheer a broken heart, sometimes to mark an end. What say you, who deny these things, to the evidences before you? Do you believe the unflinching courage of the early martyrs born alone of mortal strength? Do you reject the fore-knowledge told and preserved in history of knightly soldiers who have felt before the battle the breath from an angel's wing? Do you discard as of no amount the visions that have come to dying saints, and do you think the words of Holy Writ mere wild imaginings? Ah, Mr. President, these things are true; the embodied testimony of an enlightened world; the recorded truths of men to whom the truth was paramount to all. And if hallucinations, and if illusions as many make believe, what are they but the expressions of an intellect wrought upon by some undefined, but infinite, influence? Yet some reject, and some of us; of our guild who daily see the hidden portions of the human body; who stand appalled at mysteries not yet disclosed to us; who daily see the agonies and the strength to bear; who see the pains and aches and ills, and ofttimes, too, the light that comes at last. Five hundred deaths without the light; five hundred scenes where death approached unheralded; five hundred cots where nature sank to rest alone are

*Delivered before the recent meeting of the North Carolina Medical Society at Charlotte, May 30, 1906.

counted as no proof against the rapturous glories of the dying Saint Ignatius, and all the wisdom and the glittering fame of an honored Osler are worth but nought about this thing beside the softened whisper of some white-faced sufferer that she sees the great White Throne, and hears the soft-toned singing of the Heavenly Choristers.

The modern tendency of Medicine, Mr. President, is toward materialism; we have no more right to deny the influences of the unseen, because they are beyond our ken, than we have to deny the "Vital Principle" in life; we understand neither, but we must believe the ample evidences of the existence of both. Their union makes up the sum of our being, and on both we are dependent.

Ideals not only exist in men's minds, but they inspire their acts; since the world began the lives of heroes have led the people; the recorded deeds of great men; either real or mythical, whether in this world or in the spheres to which beliefs attached them, have been the signs which mark the paths we take; the darkest days of history are lit with beacon lights, which beam upon us yet, and in the days of myth, in pre-enlightened times, whether the tales were of physical origin or whether they were songs by which the wandering bards beguiled the weary hours, the old heroes that they sung about were to the people prototypes of honor and of wisdom, and even of iniquity; when Jove and Apollo were worshipped as gods, and The Fates human destinies spun; when the Cestus of Venus brought passion and war, and Valkyries beckoned the heroes home in the land of the mid-night sun. Then afterward when truth and legend met; when to the vices or the virtues of men were added the anger or the pleasure of the gods; when giant deeds were daily boasts and round each mighty life was wove a wreath of praise as fragrant now as when its leaves were fresh from laurel boughs; the day of early light, when visions of the saints made men believe in God; when lives revealed to us and simple acts of faith inspired the sacrifice and made the blind to see; the day not gone afar when our art was born; when from its myths and from its fallacies great men derived a grain of truth, which like a seed implanted in the ground has become a mighty tree. Through all these times ideals have led us; in all the logics and statecrafts; amid the good and wiles and wickedness of a restless world; some man living his life before us, or perhaps being one of us, has been the exemplar of that for which we strove; or if not one our type may have been a composite—the union of many virtues or of many vices, each existent in and distinguishing one life; but whether of one or of many, some type we have and some type we will follow.

Man is a creature of imitation, guided by the experience of his ancestors, shaped by the reminiscences of his own life and moulded by the records of the world. History is replete with deeds worthy of repetition, and filled, too, with actions unworthy of the memory of the race; these we study, sometimes choosing the bad, but oftener the good; sometimes choosing our arch-types by a blending of the seen and of the unseen. For all the ages men have been moved by the same life forces; have acted from the same motives; have suffered and gone to death; have lived in joy or gloom because of a virtue or a vice pre-existent in some one, who, unconsciously to themselves, have helped to shape their destinies.

It is to the credit of us all that the good we do lives after us, though the wrong be often blotted out, and that the world sets up as pillars of fire men of virtue rather than of vice. If there be bloody prints upon the pages of history, and if evil faces leer at us through the dimming haze of centuries that have some followers, the shining lights are men of truth and grace, and men whose glories shine as bright as in their day. One single attribute will mark a life sometimes, and one heroic act will point the height to which we all may climb; so true is this that names are synonyms of qualities once possessed, and this should teach us all what pictures of the past to cast our eyes upon, what we should study, what we should emulate, and what we should disregard. Unquestionably and almost unconsciously we associate names and acts; we join special vices to special men, and good men involuntarily try to follow the lives of and to appropriate the characteristics of good men; to attribute to them without thought the graces that they most famously wear, and to live by the reflection that is cast upon themselves and moulds them.

If this be true, Mr. President, if we be creatures of imitation and emulation; if our lives and characters be cast in the mould of past events and formed by an investiture of ourselves with the properties of our arch-types, the conclusion is inevitable that upon a proper selection depends our worthiness or failure. Do we prefer the blots of history rather than its glories? Do we choose to study the stories told of courage and human kindness, of honor and unselfishness, of duty and self-sacrifice, or had we rather read the tales of cruelty and envious strife, and of the treachery and wickedness that stalk the earth?

The Medical profession stands today the most honored profession, save one, among the callings of men; to the public it is colossal in its benefactions, full of charity toward

humanity, burdened with a mighty weight of mortal suffering and woe, and united to a man in all its battlings against schismatic practices; beloved by its votaries, valiant in its fightings for the proven truths, unselfish in its free offerings of discovery, and standing as one in support of scientific progression, with an absolute knowledge of its value to mankind, this great profession, I say, to the public stands mighty and cohesive in its power; it stands today erect and defiant in its scientific work and utterances because it believes it has the right through the verdict of a glorious history. And yet, Ah! yet, Mr. President, between ourselves, between us who should be united as brother is to brother, there is sometimes a mutual dislike, the spirit of a jealousy that may be akin to hate.

I wish to ask your pardon, ladies and gentlemen, for two offences. My duty here tonight assigns me to read an essay; this I am not doing and is my first offence; my second is that instead of saying sweet and pleasant things about my brethren I shall attempt to lay bear the darkest stain that rests upon the heart of us today; the stain of professional envy; of professional antagonisms, even, I am ashamed to say it, of professional jealousy. This is not a pleasant subject; we love to say in public nice things of one another, as others say of us; we love to think, each one of us, that at some other door this fault may lie, but not at ours; and yet I know, with the fullest respect to all of you, that this thing touches and grinds and tears and rankles in the breast of many here tonight. It is Bete Noir of our craft; the wormwood and the gall; the opprobrium of our art; it mars the beauty of our work; lessens the confidence the people have in us, and is neither necessary nor in accordance with the proper ideals of the medical spirit.

It might be well to seek the causes of this condition; why so much dislike between doctors? Why so many communities embittered and torn apart by the envious disputations of its medical men? One reason may be found in that ours is not a yet exact science; our judgments differ and produce varied opinions, which each one's adherents gratuitously distribute; as is common with all rumors these variances grow greater as they run, and when carried back are wider than at first appeared; the fallibility of human judgment in treating disease is a cause, a superior ability in another or the ordinary happening of a cure due, perhaps, to an altered condition; the thoughtless remarks of friends; the proffering of our advice when none is sought; the violation of ethical rules for spite or sake of gain; the strong competition which causes too much of commercialism; the opportunity often afforded one doctor to review the work of another in consultation, urgent distress, or by a reasonable or unreasonable exchange of medical attendants, and the too prevalent disposition under such circumstances to let fall a word, to criticise a treatment not our own, to strengthen our cause even if we disparage our fellow man. It is to the credit of the doctors that they are given high rank as social factors, and by this how much more is it discreditable when they, by their enmities toward each other, use this high influence to set in motion currents of unfriendly comment and vindictive criticism, which may sometimes meet and form a social maelstrom as greedy to engulf the fames and good reputes of those who come within its grasp, as are the seething waters off Lofoten's shore to draw to death the hardy mariners.

Ladies and gentlemen, you who seek our aid; you who believe in us and yet each day do see our faults; you who trust your lives to us and the lives of those most dear to you; who have watched with us full many a night till gleams of light from out the east thrust back our black despair; beside whose couches we have stood and wrestled hour by hour until we brought some loved one back from death's grim clutch, or earned for you the blessings of more days on earth; O, Woman, Woman, in whose loving heart the doctor always has a place, whose grateful words he covets, and whose pangs to him, though oft you know it not, are like unto the wails of broken harpsichords; O, Mothers of our land, whose holy lips caress and teach the little ones and pray each night that health may cling to them; who stand with us beside their childish cribs and watch with faith that we can guard your own, the feverish flush upon their little cheeks, who are the guardian spirits of the sons of men, and teach us by your sweet-voiced words what noble gifts man hath; help us, we ask, to take away this stain, this crimson blush upon our blazoned shield; give us your aid in this, our great distress, as we will give you ours; speak no harsh word of what we do when in the stress of circumstance; reflect on us your sweet, forgiving ways, and touch us with the spirit of your gentleness. Mr. President, there is a help for every ill, and there is one for this.

Once on a time there was a Man. No boast of heraldry nor pomp of power was his inheritance; obscure in life, with the teachings of a simple father and the blessings of a sweet faced-mother he grew to man's estate, and was a benefactor to his people; with body stern and rugged as the native hills whose wooded tops o'erlooked his daily walk, with temper sweet as was the

heather bloom that whitened in the dale, bright-hearted and as happy as the larks that every early morn brought wakefulness from sleep, and laugh so warm and comforting as made all nature smile, this man has left on record's page a lesson we may learn. No call for help was ever made in vain; through storm and calm, through shadow and through sunshine, ministering to body and to soul, giving ease to suffering, cheering the unfortunate, providing for the comfortless and lending the benediction of a noble charity the errands of mercy did not fail. No envy nor bickerings did he have, no war of words, no jealous ranklings in his heart; but with a courage that did not flinch; with a purpose that did not fail; with heart o'erflowed with love for all alike this simple man, blessed of his own, went on his way; his life serene and joyful, and as full of music as King Memnon's sun-kissed lyre.

The picture of this simple man may be ideal; it may find its likeness in some of you; it may be the creation of some mighty intellect touched with the beautiful possibilities of mankind; it is well-nigh the apotheosis of the lowly servitor of the medical art; its type exists and has existed and will exist, and presents not a perfection beyond our possibilities but an excellence for which we all should strive and to which we may attain; it is the story of an humble country doctor, whose work lay parallel with ours, whose temptings came to him no doubt as ours come to us, and who proved himself a mighty man because he ruled himself.

In speaking of our envies and mutual distrusts I do not wish to even seem to refer to the natural right of man to live by his own endeavors, nor do I for a moment disparage the proper spirit of an honest rivalry; I do not counsel a ready acquiescence in the habit a brother may have to infract ethical rules, nor do I deny the right to resent an unjust imputation, though it bring a breach; nor can I hold him guilty who, in the stress of dangerous circumstance, over-rides to save a life, perhaps, the rules that guide our conduct; in the lives of all of us there come these times when haste is paramount and ethics best postponed. But, Sir, I refer to that unreasonable dislike which makes a chasm where there should be a link; which makes a breach where there should be a sympathy; there is no true name to call it save its own—Jealousy—the crime for which an angel fell; which draws the wrath of God and fills with ghoulish glee the Prince of lowest Hell; which distorts the truth and feeds itself on lies; which magnifies the trivial and oft attaches wrong in deed to those most pure in heart. The same sin—call it what you may—that has been the mightiest wrecker of the world since Cain became a murderer; that has wrecked men, wrecked women, wrecked homes, wrecked States and hurled from off their honest thrones the makers of the epochs; that has marred the life of many noble sons, made saints almost to sin, and sowed its seed among our kind that bring up tares where wheat should always spring—Professional Jealousy, Mr. President, that darkening stain upon our quarterings that repels the coming of a new practitioner into our midst; which grudges a success to honest rivalry and sneers when it begets a confidence; that sees no room but for itself, and rates no service worthy save its own. It is enjoined upon us all to protect our own; to guard our fames and lives and all our natural rights; the same high power, who has endowed each one of us with talents demands their fullest use and holds us to account should we hide them in the ground; and yet the burden of a brother's part is laid on us and no one stands beyond this law. It is as much our duty, Sir, and as burdensome upon us to enhance our worldly goods by what square means we can, as it is our right to live and our right to protect our lives; and in just so much as it is our right to do these things, it is our duty to give help and not make hindrances to those less fortunate than ourselves.

There is no habit, Sir, beyond a reformation; no sin beyond redemption; no life so black that cannot be made whiter; there is a cure for this, our great professional fault; the ideals have been set for us to look upon, and are no higher than the doctor can attain; it is not given to the human mind to contemplate a higher type than one that can be reached; we must fix our standards high, and having set them up must diligently pursue them; we cannot hope, all of us, to excel; the talents given to us are not the same; the opportunities that come to us are different; the circumstances and environments of our lives are varied; we must expect a divergence in observations, in opinions, in practices and in successes. Each man here tonight has his allotted place, his allotted work, and must be the builder of his own professional edifice; is one unit, one factor in the great work of lowering or of raising higher the plane of the inter-life of the great medical community. The cultivation of a warm cordiality toward our brother doctors must be our constant study; a painstaking avoidance of unfriendly comment on their acts and opinions; a shown willingness to act for them when necessary; a support of their treatments when in consultation if possible, and if forced to disagree do so with the least disparagement and not with the intent to gain a client; be

intolerant of the hostile criticisms of your competitors by your friends, and let not rumor use your name in wild extravagancies; uphold the work and judgment of your medical officers when not in your opinion adverse to the public interests, and always keep in mind that there is a guide in life which says that you should do to men what you would have them do to you.

It is not pleasant to think, Mr. President, that in the time of so many glories of the medical art; that in the time of its many successes, its many deeds of kindness and of charity and of self-abnegation; that past the time of its many grapples with and triumphs over superstitions and churchisms and priestcrafts; that past the time of mists and murk and dangerous heresies, until now it stands revealed in all the splendor of an ancient prophecy, and through the earnestness of its myriads is unfolding day by day the as yet unseen and beautiful mysteries of human life, slowly emerging into the effulgent light of a still far greater destiny, it is not a gracious thought to us that clinging to it yet we sometimes see this deadly, blighting sin, for like of which, enhanced in great degree, have come through all the years of earth the fearful social cataclysms that with woe unspeakable have rent in twain the fabrics of the ages.

Fellow-members, there is room for every doctor on this earth today; there is work for all to do; some are more favored than the others, but each one can have the friendship of his brother and the full respect of all his fellow men. Our profession was not designed for riches; its commercialism is behind many of its faults, and I fear sometimes that its greed is sapping its gentility; for until we all believe in the usefulness of each to the other, in the equal rights of all and that our science is a science of brotherhood, we will not reach that high estate to which we all aspire; and until we know that we reflect each other; that we seem high and noble and useful, because others of our profession are high and noble and useful, we will not cast off this cancerous sore, which brings us such unrest. The light of one good doctor in a community casts its light upon them all, and the shadow thrown from one bad professional act darkens far beyond its fall. Travelers tell us, Mr. President, that in the beautiful region of the Lepontine Alps, near by the Sphlugen Pass, there stand two mountain peaks which rear their storm swept heads just side by side. Covered with unmeasured widths of snow, girded by their glaciers and towering in the clouds as though to storm the heights of Heaven these sentinels stand, the awful monuments of a primal cause; no human foot has ever scaled their giant cliffs and from their minarets the light shoots up as if to meet the splendors of some glorious majesty; alike they stand in form and height and grand embattlements, while twixt the two the leaping cascade roars, formed from the meltings of their mighty sides; darkness and the winter's blasts touch both alike, and in the morn the sunbeams sparkle on their gleaming snows like diamonds on the lily throat of Egypt's Queen. Like sentient things, who know the dangers of the path we trod, they point the safest way, and oft amid the thunders of the battlings of the clouds from out their clefts and yawning crevices there come the distant echoes, which do wail and groan and crash and rave as if within their throbbing hearts were waged again the conflict of the gods and mighty Titans. They stand as rivals for the admiration of the world, and to each peak a greater grandeur is because its mate is grand, and more sublime are both because on each is cast the rugged beauties of its fellow. And so we live our lives observed of all the earth, and side by side with him who, if he be a man, will shed the radiance of a useful life around him, but if he live in darkness and in wrongful practices some gloom will fall on us, though our lives be shining as the brilliance of the Astriae.

I ask you, fellow-members, to hear what I have said in the spirit I have tried to say it; I feel my frailties and know somewhat of my imperfections; I have felt the bitter stings, and no doubt in my short experience have dealt the blow to others; I ask no part of this for you I do not hope will come to me; the public rehearsal of our faults is not a pleasant duty, but to me this seemed a burning question, and if I have offended the pardon lies, I trust, in the intent. The song of ages past is music of a sweeter key, and rather would we hear summed up the prophecies now fulfilled; but truth will rise, and we must know our faults should we correct them. May the knowledge of our value to mankind; may the examples of our great; may our belief in the conception of our science in the wisdom of our God, and may the hope for the ultimate perfection of our art upon the earth aid us in the furtherance of one grand fraternalism.

Let us forget our spites; let us judge not lest we ourselves be judged, and when we feel a wound let's be gentle as we can; let's meet unkindness with kindly words and kindly acts, for the effort to be friends on the part of one has brought within the bond of friendship many between whom there seemed to be an ever-widening chasm. A gentle spirit has healed many a tear, and a soft answer averted many a wrath. Let us appeal in our moments of resentment from maturity's stern manhood, to when a little

child we said our prayers at setting of the sun around our mothers' knees. It is related, Mr. President, that when Jenny Lind was just beginning her life of sweetest song, and Madame Grisi then at the height of her great fame was the favored idol of all true lovers of her art, there came to be the greatest jealousy of the older woman toward the younger; it so happened, during the stay of both in London, that Queen Victoria, knowing already of the fame of Madame Grisi and wishing too to hear the sweet-voiced Swedish girl, commanded them to sing at one of her assemblages; Grisi sang first, and sang most beautifully; the notes poured forth from out her golden throat in richest harmony, and swelled and swelled till all the air about seemed bursting into song; and then came Jenny Lind, the blushing maid just barely sweet sixteen; too timid yet to face a royal throng, too shy to know her power, she tried to sing and failed; the sounds would not come forth, and as embarrassed and wounded in her pride she turned away, she met her rival's stare, sneering and triumphant and full of hatred; stung, and at the same time calmed by one quick touch of woman's soul and strengthened by some word of sympathy she asked the Queen if she might try once more; receiving assent, to her own accompaniment she began to sing a childhood's prayer she learned to sing when by her little bed at night she asked to be forgiven. A simple song of purest faith and love. Slowly and sweetly she began, each note as pure and clear and as full of music as the bells of Scheppen's chimes, and every word forgiving and as full of love as the gentle heart from which they flowed; and then, as if she sought some help from God, her face lit up and from her slender throat there rushed a mighty tempest of divinest melody, which sobbed and raged and thrilled and awed as higher yet her Heavenly voice arose until from out the skies above the angels seemed to come and join with her in one grand, glorious aria; her breath grew soft and low again with suppliant murmurings, plaintive as the moaning of the distant sea, and then at last as if some hovering spirit whispered that the day of peace was broke, were heard the song of gladsomeness and music joyous as the babbling of a summer's brook. She rose and from a hush as silent as the stars at night there came the victory; the little prayer had done what woman's will had set at naught, and child-like words in simple song had tied the bonds of sweet accord twixt those who had been enemies. Grisi approached and kissed this daughter of the North, and with a heart of love where hate had seethed she turned away. And this, Sir, is the feeling we must show; the gentle touches of our early lessons. If we love our profession we must strengthen its union, and must sacrifice our feelings sometimes as freely as its heroes have their lives; we must live and work and forgive, and if need be, suffer too, for the ultimate good of a greater humanity. The sternest, too, are softened by a gentle word, and many a time some heart of oak, made harder still by hostile attitudes, has grown as soft when tenderness is shown as winter's ice when Notus breathes upon it. The giving rightful dues for labors well performed, and honors for heroic acts, have been and are and will be evermore the strongest props of men and States and Kingdoms of the earth.

It is said, Sir, that at the battle of Wagram the legions of France had been hurled back time after time by the terrific onslaughts of the Austrian hosts massed in their front; with a lightning eye and with that prescience, which was in the hour of danger the very genius of Napoleon, the Emperor saw that his only hope lay in dividing the army of the Arch-Duke Charles. Summoning MacDonald, he ordered him to pierce the Austrian centre. This General, between whom and Napoleon there was at this time a feeling of unfriendliness, bowed his assent and silently turned away. Putting himself at the head of his veteran corps of fifteen thousand men, his towering form erect as if some gigantic Titan was at war, his eye lit up with battle's lurid glare, and his stern old heart filled with a soldier's purpose to save the Empire or to die, this hero of the French began his awful charge. Across the plain is heard the measured tread of armed men, and from their front and from each flank there come the roar and crash and shrieks and screams of Austria's mighty guns; yet on MacDonald goes; and now men fall; the ranks close up and others fall to die; the groans go up, the piteous cries of pain, the calls to God are mingled with the rattle of the musketry; the battle flags are torn and rent, and hands that hold them up are black with clotted gore; and still MacDonald moves. But now we see the tired soldier pause and look behind; he sees far back a trail of blood and men; he sees one stand where ten had stood before; he hears a mighty cry go up "Vive le Empereur," and then he hears, O, God!; far off he hears the thundering on the Austrian left of Davoust's savage guns; "Forward" breaks from MacDonald's iron lips, and through the gloom and streams of sulphurous smoke, through shouts and din and clash and belching tongues of flame, through living walls of fire and crimson rivulets he leads his war-scarred veterans, straight through the jaws of death, right to the mouth of Hell he storms and storms and storms until at last

with one tremendous shout he broke the battle line of Austria's royal Duke, and changed defeat into most glorious victory. And when the Emporer held out his hand and thanked him for his valor and his noble services to France, presenting him a Marechal's baton, this grand old man forgetting all his anger, all his hatred, which he thought was just, grasping Napoleon's outstretched hand, while tears coursed down his rugged cheeks, said, "Sire, I count all that I have done this day, all my life as nothing but for the glory of your majesty." This, Sir, is the spirit to guide us, and this the zeal to urge us on if we hope to reap a ripened field, and if we expect to gather figs instead of thistles.

I have said these words, my fellow members, because to me it seems a danger lies; if I mistake the words are wholly mine; if I'm condemned then let it come—the condemnation's mine;

I'll feel full paid if from a word
Of mine some seed may spring
To blossom, and on every heart
Their gathered fragrance fling.

For what too oft has come to me
May bring to you some mars,
For both have friends as dear to us
As Cancer's triple stars.

And so I'll write and say my say,
And strive for what I ween,
Will keep from out your lives and mine
This fault—and all that's mean.

This fault touches me, and so I think it must touch you; it may be that it is growing less, but while it exists upon the earth its exorcise must be our constant aim, for by this alone can be achieved the climax of our work, can come the full respect of every one, and can be brought to pass a strong cohesiveness.

Mr. President, philosophers have dreamed of universal knowledge; scientists have dreamed of the perfection of their sciences; statesmen have dreamed of universal empire; conquerors of never ending victory, and poets have sung of a beautiful land where flowers loom and brippling streams chant glorias to their God; but, Sir, the sweetest dream that can come to him who loves the art of Medicine; to the student who has learned of the days of a nebulous myth, who has read of its march triumphant through the years until it conquers sometimes even death itself; I say, Mr. President, the sweetest dream that can come to him is not of the plaudits of a thankful people, nor of well deserved rewards, but it is a dream of peace and concord, of unity and freedom from dislikes, of great professional cohesion and mutual friendships, which make more close the bonds between us all.

Sir, I am done; the future is not told to us save as we gauge the past; the height from which the world was made still is and guides; the frailties of mankind are burdens we must bear, and if we bear them down, we must look upon ideals that elevate our standards, find these where you may, and having found them cling more closely to the lessons that they teach. The years to come will bring to us more cares, more kindnesses, more conquests and defeats. Our building stands secure, implanted on a rock deep sunk in toils, and battered by an erstwhile storm of persecutions, but solid, hard, as lasting as the cliffs and beetling crags of Norway's stormy shore. And he who lives will see some day where our structure stands a splendid temple rise, each building stone the monument of a wearied, useful life; across its massive doors are writ the stories of our great, and in its halls and stately corridors are costly tapestries and pictures of the struggles that are past; the epoch scenes are vivid on its frescoed walls, and from its spires and gorgeous pinnacles there hang the emblems of our steady onwardness; no sounds of discord ever dwell therein, but oftentimes there rises on the eventide the joyous hallelujahs of the waiting multitudes; its sculptured columns lift eternal as the truths on which they stand, and far beyond, beyond the daily restless strife, its glittering dome, resplendent in a golden sheen, gleams out and sends its rays of purest light to gladden burdened men. But higher than all this; than all our trophies won from occult sciences; than all our triumphs and our overthrow of heresies; than all our proofs of life's deep-hidden mysteries and all the stories of our deeds which make a tome of wondrous worth, higher yet than all of these there waves above this temple we will build the banner of a perfect brotherhood, which floats and dips and glistens in the early light of day to show the world that for their greater good we've fought the fight and won, have torn the bitter envies that we once possessed from out our hearts, and over ourselves have gained the mastery.

The End Results--Mental, Physical and Psychic, Following Ablation of Certain Organs and Structures in the Human Body--A Critical Review of 1250 Operations.*

By J. Ernest Stokes, M. D., Salisbury, N. C.

When the Creator spoke and man sprang into existence, there stood forth in creation a mystery—marvelous, wonderful, sublime, in its complex and interwoven structures of body, mind, and spirit! A mystery that only a God could have created! A mystery so great that thousands of years afterwards we hear the Psalmist cry fearfully and won-

*Read before the North Carolina Medical Society at Charlotte, N. C.

derfully are we made!

Glorious, indeed, must have been this human body as it came forth fresh from the hand of the Creator, with all its various tissues, structures, organs and systems, in perfect condition and relationship. The instrument of a thousand strings, with each string attuned to vibrate in perfect harmony with its fellow! But man sinned and the curse fell, and with the curse came the blight. The thousand strings no longer vibrated in perfect harmony and accord. The delicate, wonderful, interwoven structures of organs and systems became the seat of disease, and each organ not only suffered injury or death to itself, but imparted them to other and distant organs, sometimes threatening the death of the whole. Then again, in the history of the human race, was heard that same voice that had called man into existence, saying, "If thy right hand offend thee, cut it off and cast it from thee; if thy right eye offend thee, pluck it out and cast it from thee!" Hence, just as invention follows necessity, so has surgery come into existence to meet the diseased conditions of the structures and organs of the body, and it is brought before us clearly, in all its manifold responsibilities, demanding and exacting prevision, acumen and sagacity of decision, with a quickness of execution on the part of all who attempt successfully its practice. With these demands ever present, the question readily comes before us, how can we be best prepared to meet and overcome them? overcome them in so direct a manner that the amount of work accomplished, and the final results obtained will demonstrate that even apart from the medical centres, surgical attainments of the very highest order can and no exist.

To accomplish this, however, will require more than a strong head and a ready hand; adequate and appropriate training should be the stepping-stone. On this point a prominent surgeon has to say, "Only those should practice surgery who by education in the laboratory, in the dissecting room, by the bed-side and at the operating table are qualified, first, to make reasonably correct deductions from subjective and objective signs; secondly, to give sound advice for or against operation; thirdly, to perform operations skillfully and quickly, and fourthly, to conduct wisely the after treatment." Notwithstanding such self-evident facts and in direct opposition to such necessary and indisputable requirements, too often do we see solely the conscience of man and the enlightenment of a community decide who is qualified in surgery, and even to what lengths he is justified in proceeding in the practice, irrespective of training or attainment.

It is easy to understand that the layman may not understand or realize to how great extent the gravity of surgical interference may vary, or fails to place the proper valuation on skill attained only by long training and broad experience. He is simply governed in his choice of a surgical adviser through association or preference, even mere personal acquaintance. Many times does one hear of the patient and family having consented to an operation on the condition their family physician should perform it, even though that physician may have no surgical inclination or aspiration. The laity base their selection of a surgical consultant often simply on results independent of the actual lesion to be contended with. Thus a man totally lacking proper training and experience may do an amputation, or operate for some stray or indefinite pain, which results in recovery of the patient, and consequently stands out in the eyes of the community as a far safer and more desirable consultant than the surgeon of experience and training, who happened to operate next door on some acute abdominal emergency, or advanced carcinomatous condition, say of the uterus, which resulted fatally. Even though in the first instance the amputation might have been avoided and the pain ignored; while in the latter the surgeon's sole duty had been to give the patient, unselfishly, the benefit of the one and only hope for life.

In addition to the proper education and training, personal experience and skill, the natural aptitude of a man should be a potent factor in qualifying him to take up surgery as a specialty.

The physician is a minister of great ideas requiring proficiency, patience, perception, and painstaking efforts in research. The surgeon is ever a servant of tyranical duties, of arduous achievements, demanding strength; decision, even to the point of obstinancy; foresight and other mental powers far beyond mere manual skill. The greatest good to the greatest number can only accrue through the combined efforts and labors of both. Unquestionably they should labor hand in hand, though neither one should allow his field of activity to extend beyond his specialty, into that of the other. It is just as incumbent upon the surgeon to give up to the physician his medical practice, as it is that the man doing medical practice should turn over to the surgeon all cases surgical. The work in this way will be centralized where environment and surroundings are better conducive to success, and where the good results which can only be obtained through training, experience and skill may be so grouped and may so multiply in number as to stimulate and

arouse that community at large.

The sphere of surgery is rapidly expanding and pathologic conditions are becoming so much earlier recognized in their period of growth and development, that the ability and skill to cover the entire field of even the specialty of surgery itself are vouchsafed to a very few operators of today. It is true that the majority of surgical interventions are safe and easy, the mortality, excluding acute abdominal emergencies and certain brain lesions, is low. Yet to decide whether an operation is justifiable is indeed in itself a grave responsibility, and owing to this expansion of surgery and that pathologic conditions are seen much earlier than formerly, it is becoming daily more and more difficult to decide correctly and wisely for or against operative interference in many instances. To decide correctly on the one hand whether surgical intervention is indicated or necessary; or on the other hand whether it may not be contraindicated or unnecessary calls for the most careful and conscientious study on the part of every operator.

The responsibility of the surgeon is indeed great, not only to his patient but towards retaining the confidence of the laity. The failure of an operation, either by incompleteness or death, reaches far beyond the loss of a life. For a community understanding an operation to be dangerous, or having been accepted by a patient as a last resort, is generally lenient when failures occur; but in those cases where there is reasonable doubt of the justification of the operation, where the patient appears to the community as being in good health and the operative intervention be followed by failure, then it is that the community is obstinately unforgiving, and surgery receives a set-back, which not only impedes its progress, but discourages and turns many an urgent case against a justifiable intervention. These are the instances which demand that the surgeon shall ever maintain in addition to his ability and skill a close study of his records, an eternal vigilance, from which springs the power to grasp the essential features of each individual case, and thus formulate almost invariably a correct decision, for the betterment of his patient and the advancement of surgery.

The following observations of The End Results, Mental, Physical and Psychic, following ablation of certain Orgons and Structures are based on conclusions personally drawn from 1250 operations occurring at the Private Sanatorium, Salisbury, in this State. These cases cover a post-operative period of more than six months, as no case has been considered in which the post-operative convalescence has not extended over at least that length of time.

The mortality, occuring in this series of cases was 6.4%. It is only fair, however, to add that the death rate has been made on the same basis as that used by the Mayo brothers in their gall-bladder records, namely, that if a patient entered the hospital alive, was subjected to an operation and came out dead, the death was accredited to the operation. Thus in one instance a patient succumbed suddenly from a pulmonary embolism, on the fourteenth day, following a hysterectomy. Though the convalescence had been absolutely uninterrupted; the temperature never above normal, and at no time up to the moment of her death had there been the slightest untoward symptom. Another death occurred twenty-one days after operation from acute nephritis following removal of a suppurating appendix. While still another patient succumbed to shock following operation for ruptured spleen, after having ridden a number of miles in an erect position in a buggy. This list also contains the deaths following "The Operation of Last Resort" in the advanced stage of either the delayed or unrecognized cases of septic peritonitis. In one series alone of fourteen consecutive appendectomies, nine were drain cases with more or less septic peritonitis. The aim in presenting this list of fatalities is not to indicate in the slightest the mortality incident to any special class of surgical cases, but simply to indicate the gross mortality occurring in the institutional work.

Mental Results.

Though a temporary confusion of ideas, to a varying degree, is not infrequently found following surgical intervention, the state of mental aberration or actual insanity occurring as a surgical sequelæ always produces consternation and resentment. Fortunately it is an extremely rare occurrence, in comparison to the whole number of operations and still more rare in comparison with the whole number of insane. Nevertheless that it does occur should make every operator observant and vigilant towards detecting any manifestations previous to the surgical intervention, and thus be able to warn those interested in the patient. For it is a sequela, which may frustrate the aim of the operation, appall the family and friends of the patient, and bring an odium upon surgery which will be hard to eradicate.

It is far beyond the writer to discuss the relation between the causal factors and alienation of the mind following surgical procedures, save to call attention to several purely clinical facts. It has been noted by an eminent writer "That the lower we go in the animal scale, the more important the visceral impulses seem to be in determining

the actions of the individual. But in the normal, healthy individual these are kept in the back-ground, whereas during disease the organic sensations may become so prominent and insistent as to be important in determining action."

Thus the state of alienation succeeding an operation may be wrongly attributed to the surgical interference, when, in reality, if the actual condition of insanity did not ante-date the operation, a strong predisposition did.

The possible causative factors concerned in a case of post-operative insanity are innumerable, the physical condition of the patient; the neurotic tendencies; the great fear and apprehension of the anesthetic; the nature of the operation at that especial time; the kind of surgical dressings used, the after treatment, especially with that cruel and senseless withholding of water for hours and hours, and finally the drugs administered.

The question of absorption in septic cases, and the toxic influences, in those cases where the area of operation can not be rendered thoroughly aseptic, as the vagina, rectum and genito-urinary tract should be borne in mind as possible factors. Sex does not seem to be a potent factor; the statistics varying greatly on this point.

In the series of 1250 operations there were four occurrences of alienation of the mind. Three of these proved to have had marked predisposition to insanity; while the fourth, a septic case, has made a complete recovery.

Regarding the remote end results, from 380 cases, of several years back, I find, from personal communication, taken at random, the mental condition unaffected, in fact, without exception, the general reply was unaffected or improved. This latter, of course, is attributable to improved health and improved condition.

Physical and Psychic Results.

The remote physical condition of a patient, as a post-operative sequela may appear so self-evident to many of the profession as to be thread-bare, and lacking in value, or interest; but it is not so with the laity. It is an inquiry not infrequently made. For, with the increasing recognition that surgical intervention, in this period of time, is more often accompanied by success than failure; that evil results are due more often from omission of an operation than from permitting one, the natural question arises, what will be the final physical condition? Will it be possible to take up the former lines of duty, on passing from the surgeon's hand? This is not an infrequent inquiry regarding the operations on the appendix during the interval. Or a mother may fully realize that from a standpoint of safety and probable avoidance of serious trouble later, that the young daughter should be operated upon; yet she will hesitate to the point of refusal, wholly from dread that the young girl's remote physical condition may be impaired or she will show by physical depreciation the operation. It is not an unusual inquiry whether the removal of the appendix does not preclude the possibility of a long life. These are not questions of jest, but asked in all earnestness, and must be met by physicians and surgeons.

Formerly when surgery was looked upon and acknowledged to be an art of necessity; to be taken as a last resort, the remote after effects came in for slight consideration. The operation had accomplished its end if the patient did not die. Now, however, surgery is wisely looked upon, even by the laity, as a science of election. One to be envoked, not just resorted to. The means of not only saving life, but of improving or removing conditions which are not in themselves necessarily dangerous, so much as undesirable. Again the laity is rapidly, very rapidly coming to the recognition of the immediate advantages and benefits obtained by early surgical intervention, even in some instances abreast with the profession. It is beginning to be understood that when the pathologic lesions are taken early in their period of life, how safe surgery is, and how seldom the dangerous and painful complications, immediate to former operations, do now occur. So it is very natural that the layman's mind, freed of these points, should turn to the more remote end results and ask for assurance.

The point to be established is not what the reflexed after effect on the human body, the removal of an organ or certain structures may produce—a most comprehensive study in itself—but simply to show that, taking the body complex as a whole, the physical and psychic integrity is not destroyed by surgical intervention, and thereby remove if not a local prejudice at least one too prevalent.

To illustrate this point: In a series of 380 cases taken at random, the percentage of total absence of any unpleasant physical or psychical post-operative sequala whatever was 96%. Of the special cases worthy of note, one was rupture of the pelvis of the kidney, with extravasation of urine into the peritoneal cavity, following the extirpation of the opposite kidney two months previous. The kidney was sutured and a large hydrosalpinx and fibroid ovary removed, followed by recovery. Even at advanced age extensive surgical interventions may be resorted to without untoward effect. Thus were two cases of large, adherent, abdominal tumors in patients aged 79 and 76 years respective-

ly, removed by abdominal section, followed by an uninterrupted convalescence and complete restoration to health: while in another patient, aged 87 years, a high amputation of cervix, with two extensive plastic operations on the vagina for complete prolapsus utri, was likewise followed by complete recovery. This patient is alive today, having experienced no unpleasant post-operative sequelae in the slightest degree. Finally, two cases of interest illustrating that even extensive manipulation of structures and organs may be followed by complete recovery and the restoration of the human body to a normal state, not showing in the slightest degree the extent of the trouble, nor the extensiveness of the operation. I mention a cystectomy for a large, densely and universally adherent cyst of the ovary, weighing sixty-nine pounds. The recovery was uninterrupted after a perfectly normal convalescence. One splenectomy, for a large movable spleen, extending into the pelvis, weighing nineteen pounds. This case was operated upon four years ago. She has enjoyed excellent health, and has passed through two perfectly normal pregnancies.

In concluding, in order not to be misunderstood, I repeat that in the critical review of these 1250 operations, the immediate complications or more remote particular results, which do or may follow any special operation have been purposely avoided. The one object has been to show, in a broad way, that out of the large number of operations the gross result is highly satisfactory, and unless the pathologic lesion either by delay, nature or extension as to preclude it, that the human body resumes its normal state mentally, physically and psychically even after the most extensive surgical intervention.

Some Points in Clinical Psychiatry of Interest to the General Practitioner.*

By Isaac M. Taylor, M. D., Superintendent and Resident Physician Broadoaks Sanatorium, Morganton, North Carolina.

The family physician, in whose practice occurs a case of illness accompanied by mental symptoms, which develop independently of acute disease, or persist after the subsidence of fever, and well into the period of convalescence, has presented to him directly by the friends of his patient or by his own thought several questions which require, for an approximately correct answer, the experience and the study of the alienist.

1st. Is the symptom complex in this case such that it should be termed "Insanity"?

Insanity is a term not possible to define, it is more of a legal than a medical term, it is relative, and what is denominated insanity by one set of people is not so called by another.

To the alienist any prolonged departure from the normal mental processes not accompanying the acute diseases and independent of the use of intoxicating drugs, is termed insanity.

Under the common law and in countries where the development of the law has not recognized the disease conditions underlying deviations from normal mental states, there must be as a test of the lack of mental integrity, an inability to distinguish right from wrong, and an inability to control the actions and emotions.

The ordinary layman looks upon mania and dementia as the only insanities, and classes the equally insane paranoiac as a crank or criminal, according to the degree in which his acts are offensive to the community, and thinks the melancholiac lacks only action to remove his depression.

Taking a conservative position we may consider a person insane, who, independently of acute disease and drugs, shows a marked degree of mental alienation, a wide departure from normal habits of thought and action, or who has become offensive to those with whom he has come in contact by reason of his mental state. Symptoms which point to a tendency to violence, homicide or suicide, should especially influence the family physician to a declared diagnosis which is always shocking, and often offensive, to the friends of the patient.

2nd. Has the time arrived for separation from home and treatment in an institution especially devoted to these classes of invalids?

The modern idea of the treatment of all diseases calls for the equipment of a hospital, nurses trained for the especial work, construction of buildings adapted to the peculiar needs, and physicians in ready call for emergencies. The Psychopathic hospital is as much needed for the treatment of recent cases of alienation as are the Surgical hospitals for the treatment of surgical diseases and emergencies. It is true that with care some cases may be carried to a successful ending in the home. Broadly speaking cases of Melancholia, of Dementia Praecox of the hebephrenic type, and mild cases of Maniacal-Depressive insanity in the depressed stage may, with sufficient nursing force, remain at home, always remembering that melancholia means a strong tendency to suicide, that the precocious dement is subject without warning to do a violent act, and that maniacal depressive insanity may with little notice pass from the depressed stage to the maniacal.

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We should be very watchful too for unsuspected delusions and tendencies, the perverted sexual instincts, the sudden impulse to burn or do other mischief.

The paranoiac is usually unbearable at home, but may be trusted there until his delusions render him violent or show him to be dangerous. The maniacal state of maniacal-depressive insanity should be treated only in a hospital. Without exception all cases of Paresis, the general paralysis of the insane, should in the beginning of the disease be removed from the environment of home, and all cases where in any form of insanity there is a marked homicidal or suicidal tendency. The demented states of all forms of insanity can be cared for by those anywhere who have the willingness to take the trouble, the patience to persuade to eat and the skill to feed by force when food is refused.

3rd. Is the mental disease in this case, in the class of those which will recover?

It is impossible for any one, however skilled or experienced, to say which case will recover; it is possible with reasonable certainty to pick out some which will not get well, but these sometimes will deceive us.

It is, however, possible by close analysis to place a case in a class and reason from experience what chance it has for recovery, youth is a favorable factor in the prognosis, a small per cent. of the cases of dementia praecox will recover.

There will be apparent recovery in about half the cases of maniacal-depressive insanity occurring in persons under forty years of age. Melancholia, usually occurring as it does in elderly persons, whose condition is one of degeneration with a marked lowering of vitality and usually associated with organic disease of heart, liver or kidneys and atheroma of arteries, points to an unfavorable prognosis.

Insanity associated with epilepsy we may regard as chronic, and while between times the patient may be quite well showing no symptoms beyond an impaired mentality, we may be sure of another outbreak.

The paretic will not get well, and alcoholic dementia, though running its course to a fatal ending much more slowly, gives no promise of other change than gradual and positive decline in mind and body. As a rule a case of insanity with distinct auditory hallucinations is to be regarded as chronic. Insanities occurring in markedly hysterical subjects give promise of possible and often astonishing recoveries. Insanities the result of toxis, septicæmia, auto-infection, or the acute diseases, may be expected to recover with the removal of the cause, The factor of heredity must be considered in every case and has a very great bearing on the prognosis.

The cases of paranoia are hopeless from the beginning, and cases of dementia praecox, which have developed paranoiac symptoms, are most unfavorable. We may conclude that a mistake in diagnosis has been made when a case called paranoia gets well.

4th. In the event of recovery may we expect full recovery or will there be permanent impairment?

The cases of insanity resulting from toxis, auto-intoxication and the acute diseases may result in perfect and complete recovery. Some cases of dementia praecox may end in recovery so nearly perfect that we can point to no evidence of mental impairment. The maniacal-depressive forms of mental disease furnish the greatest number of apparent recoveries. The epileptic insanities are followed by a continuance of the recurring epileptic seizures and eventually by a permanent blunting of the mental faculties.

5th. May we expect a return of the mental disease in after years?

The occurrence of mental disease demonstrates a constitutional lack of nervous balance. Almost always a search will show hereditary causes, and these being present, under similar stress the mind may again give way and insanity develop.

The cases of maniacal-depressive insanity which recover will, in many cases, in after years again develop the prominent symptoms which we call insanity.

Cases which follow acute disease, recovery being complete and those cases caused by toxis, give the best promise of permanent recovery.

As civilization advances we find more and more the mental deterioration which the struggle for life brings, the effect of the use of alcohol to excess by forebears, the presence of syphilitic taint from personal infection or as an inheritance is more and more in each succeeding generation, as we seek for the etiology of the cases, brought to our attention.

In conclusion, there are no diseases to which such careful study must be given before a diagnosis is made, as those of mind, and we may not pronounce any person insane before there is thorough study of the body functions and a complete release from commanding drugs, especially the more potent so-called hypnotics. A diagnosis having been made, there is no greater injustice to the patient and the family of the patient than, from fear of offending, to keep up the hope that the case will go on to recovery while continuing it in the conditions which must be most unfavorable for such a result. The hospital is not always indicated,

but the hospital comes always before continued seclusion, the continued solicitude of injudicious friends and neighbors, and especially before the continued use of sedative and sleep-commanding drugs.

When The Baby Comes.*

By Dr. Cyrus Thompson, Jacksonville, N. C.

There is no other time in a woman's life like the hour when the baby comes. You saw her "like a red, red rose that's newly sprung in June" when, just bloomed into ripe womanhood, she bent down one day and kissed her neighbor's new-born baby, and said extravagant things to it, things which you and I could never have thought of. Moved by her two strongest instincts of maternity and protection, the protecting arm of the man who for love should choose her from among a thousand, she was dreaming of the time when, in her husband's house, she should kiss and clasp to her breast a bairn born of her own body. Not consciously, it may be; but so dreaming, none the less. And now the hour is come, and it is a time of trouble. It is her supreme hour. In other hours of trouble, she may comfort herself with friends, or find solace in fair recollections of long ago she may hope that time, moving slowly, will smoothe the bitter angles of a deep regret, or dull the keen edge of a lasting sorrow: some balm of drug, or touch of hand, or kiss of love, may ease her pain, or quiet her fear, or give her rest. But this is the hour of fruitage; the rose-petals are all blown with the winds; it is the hour of fact and not of dreaming fancy. It is the inevitable crisis which must be met in the path of her love in fulfillment of her highest destiny; and the woman must be in travail alone. God pity every woman that comes to bed with child, and give her that sweetest of all a woman's joys, to know that a man, or a woman, is safely born into her house! Have you never heard one say "Oh, Doctor! I am so thankful it is all over, and that the baby is all right?" I have sometimes thought that no man ever felt a joy comparable to that.

Do you say that you will relieve her pain with chloroform, or ether, or morphine and scopolamine? Take away all her pain—I have seen an eclamptic unconscious of it—make labor as painless as the kiss of love, the hour when the baby comes is by no means thereby delivered of its pregnancy. The accidents that may befall her then and the consequences that may follow long afterward, anaesthetics do not relieve these. A painless labor will not prevent a laceration, or a hemorrhage, or an infection. It may or may not leave the woman in apparently better condition upon the termination of the process. Go ask the general practitioner how many of the ailments of mothers date from the birth of the baby; ask the gynecologist how far a better practice of obstetrics would diminish his clientele; and ask the husband what time the roses began to fade from her cheeks and the daily weariness to come on, and the zest of love and of life began to wane. Their answer will but emphasize the mother's need of the profession's best care when the baby comes.

True it is that the healthiest, helpfulest, happiest women I ever knew were mothers—mothers of many children, women that were well cared for in their confinements. One such I met only a few days ago at a house whither she was come to inquire after a neighbor's sick baby. A plain farmer's wife she is; she does her house work and kitchen work without servants. "I have seven children," she said. On my drives that way I see her children, robust and happy. The color and spirit of June days has not left her face and mien; her eyes are not dimmed, nor her natural force abated. This woman knows nothing of headaches and backaches and dragging sensations, and pains about her heart and lumps in her throat, and miseries in her side and in her pelvis. Her husband is full of industry, and his face is without worry. In the nature of things, to be sure, this woman will pass

> "Through years of toil and soil and care,
> From glossy tress to thin gray hair;"

But none the less true it is, that

> "The morning dew that dries so soon
> With others, glistens at her noon."

But this type of mother is not the rule, unfortunately: it is the exception which proves what the rule ought to be. With better attendance for women when the baby comes and for a little while afterward, this small company of normal mothers could be largely increased. In what other way could the sum total of human happiness be so greatly augmented? A strong and happy woman in the house is the surest foundation for a prosperous and happy household.

It is well that this Society twenty-odd years ago took a stand for the protection of the public, and secured the passage of the act regulating the practice of medicine in North Carolina. A member of the Legislature at the time, I well remember how this innovation upon old custom, this "infringement of human rights," was opposed. Lawyers opposed it, although they might generously have considered it an effort of medical men to get legally on an equal footing with them. Even medical men in the Assembly opposed the measure, we need not stop to

*Read before the North Carolina Medical Society, Charlotte, N. C.

inquire why. Its best friends, perhaps, were thoughtful farmers and business men. The bill became law, however,—weak as a child to begin with; but through lapse of years, now grown well-nigh to manhood, it is firmly fixed in popular favor. This act protects the public against gross ignorance in the practice of medicine,—except in the one important field of obstetrics. Anybody may practice midwifery in the proud commonwealth of North Carolina who has knowledge that, when the baby comes, it is followed by an afterbirth, which must not be left permanently attached to the child.

If there be a remedy for this public and professional disregard of the welfare of women, it is cruel not to find and apply it. The mothers directly, and their families indirectly, are entitled to the benefit of it. We have laws for the protection of the public against acute contagious diseases, diseases dangerous to the public health we say; not one of which, nay, not all of which are so destructive of health and happiness as the ignorant, careless, and uncleanly practice of midwifery.

I have sometimes wished that pregnancy might be included in the list of contagious diseases, and that parturient women and their attendants were quarantined and disinfected before the labor begins. One acquaintance I have who does, indeed, so regard it. He rang my bell early one morning, and my wife, being near the door, answered. Lying in bed, I heard the young man say that "Mr. Blank's wife is mighty bad off, and he wants the Doctor to go and see her just as quick as he can." My wife, who is always afraid that I will bring home smallpox, diphtheria, or the like, to our children, asked what was the matter; and added, "She has'nt any catching disease, has she?" I heard the fellow stammer, "Ye—yes'm! She's in the family way!" I got out of bed at once, and went to the door to relieve the faltering speech; from which I had gained knowledge. Labor is the limit of a germ disorder that affects, or is liable to affect, about one-half of the population; and previous attacks confer no immunity upon the subject of the malady. I went with due haste, and took with me the usual disinfectants.

It is said that the saddest commentary on the boasting of modern medicine is the continued presence of puerperal infection. In other fields of surgery, the danger of infection is practically nothing: nobody expects infection in a laparotomy. And while obstetricians were the earliest advocates of asepsis, it is declared by as high authority as the President of the Obstetrical Society of London, that the mortality from puerperal fever has rather increased than decreased in the last 20 years. DeLee of Chicago, holding similar opinion, says that it is a very conservative statement to say that 6000 women in the United States die every year from puerperal fever, to say nothing of the vastly greater multitude who suffer infection and recover. And what is true in this particular of the United States and Great Britain, is none the less true on the continent, also: Bumm says that 4000 to 5000 women die annually from puerperal fever in Prussia. The record was no worse in pre-antiseptic days. But we are told that in large cities the showing is better than in the country districts; and that in Maternity Hospitals, mortality and even morbidity from puerperal infection have been reduced to almost nothing. So, then, we are confronted and staggered by the ugly fact, that in private practice puerperal infection is at least as frequent now as it was in the days when we knew nothing of asepsis.

This difference admits of but one explanation: if the Maternity Hospitals have put obstetrics abreast of surgery in other fields, it is only because they consider every case of labor a case of surgery; and in every confinement, therefore, they attempt the same aseptic precautions that surgeons exercise elsewhere; and, if private practitioners of obstetrics, whether physicians or midwives, are followed more frequently than the maternities by puerperal infection, it is mainly because they do not view labor in this reasonable light; and do not, therefore, whether from carelessness or ignorance, take the same aseptic caution in the conduct of it.

It is admitted that when the baby comes in private homes, the conditions surrounding its coming are, on the average, not so favorable for clean work as the circumstances of a modern hospital. But the conditions in private houses are certainly no worse, and are probably better, than they were twenty years ago. And may it not be said, moreover, that the physician is measurably the maker of the environment? Even in the houses of the poor, would not the environment in any case be bettered upon the word of the professional attendant? Nothing but a clear denial of the value of asepsis can charge the bad showing of private practice to faulty surroundings.

If the physician would get it fixed in his mind that all obstetrics is surgery, requiring scrupulous surgical care, he would teach the public lessons in cleanliness which even the poorest would heed. For the physician, if he will be, is an authoritative teacher, authoritative certainly among the poor. As it is within his power, therefore, it is the physician's province to educate the public to cleaner and better conditions about the

parturient and puerperal woman.

But the general practitioner, it must be confessed, is sometimes a careless obstetrician. It may be that circumstances tend to make him so. Reaching a case belated after a hard drive, he may find the waters broken, the head upon the perineum, or, it may be, already born,—conditions so urgent among anxious friends as seeming to excuse his lack of preparation. The woman in dire distress may have fallen into the hands of a midwife, or of some superannuated female friend whose fear, sympathy, and ignorance stand in perfect equation. In such circumstances, what time has the physician for thorough cleansing, and what will such cleansing now avail? If he would infect the woman, she is infected already: so he may persuade himself as he throws off his coat, rinses his hands with a little soap and water, and dries them on a towel which has been doing multiple service. In God's providence, this woman does well: he may recall others of like good fortune. Gradually asepsis becomes tiresome and seems unnecessary to our professional man. One day it occurs to him that Adam and Cain must have been their own obstetricians. What did Adam know of sterile water, or bichloride solutions, or rubber gloves? He didn't even have soap. Adam knew nothing of these things, and no more knew Cain, his son, in the land of Nod. So he settles down dreamily into the foul ooze of the midwife.

But the physician should always remember that in midwifery he is a surgeon. If a perineum tears, he can afterward repair it. It were better so than prevented with infectious hands. And the hands of the midwife may be nearer sterile than his own: he may bring with him contamination from some focus which she has not known.

The infection of a puerperal woman,—child-bed fever they call it and remember who died of it—is a matter of the gravest solicitude to the mother herself, to her husband whose life centers in his wife, and to her friends who are helpless about her: the children who play in the yard, they alone keep happy with the thought that "a pretty little baby" is come. Their only worry is their wonder where it came from. And what if the infection through your fault proves fatal? The woman makes no accusation: she has found "rest from all bitter thoughts and things." The husband does not blame you: while he is struggling to reconcile himself to "God's will," his ignorance covers your crime. But when you look into the sad faces of motherless children, what will you say to them? And when their father sits by his fireside alone, musing

"How strange it seems, with so much gone
Of life and love, to still live on!"

what cheer has your conscience for him?

Like every other surgeon, the obstetrician must take time to make reasonable preparation for his work. It is a prime maxim in all practice to do no harm. To make haste slowly is better for his patient, and it is best for him. For while sepsis is not always fatal, it is always distressing and it may entail conditions and suffering which the woman will bear about in her body through the long-drawn days of a wretched life.

When labor begins, the contents of the uterus are aseptic. Rarely, if ever, at this time are septic organisms found in the vagina; and the vaginal secretions are protective against such organisms if present. But the external genitalia are always septic, and the unsterilized hand of the accoucheur is always septic. Ninety-nine per cent. of all cases of puerperal infection results from vaginal examinations and manipulations. As a source of infection, unclean apartments, bed-clothes and garments are not comparable with unclean hands and unclean genitals. If the woman is infected, therefore, the fault lies with the accoucheur who fails to put unclean fabrics out of his way, and to disinfect himself and his patient.

But when the physician has ample time at his disposal, does he always have due regard for obstetric asepsis? No man should examine a parturient or puerperal woman until he has thoroughly disinfected his hands and his arms above the elbows. We are told to trim and clean the nails, and to scrub with brush and soap and warm water for five minutes, changing the water two or three times, and then to scrub for the same length of time with a 1:1000 bichloride solution, or a solution of lysol 1:150, or the like. So little as this is not always done. If done, it may be insufficient. Such cleansing might do for hands not specially contaminated, and so cleansed every day. But the delivery of babies is not an every-day business with the general practitioner; and, besides, the general practitioner attends all sorts of cases. He may be dressing an erysipelas or a suppurating wound today and attending a labôr tonight. No scrubbing for five minutes will sterilize his hands, and no brief contact of a solution harmless to the skin will destroy all the pathogenic bacteria that flourish thereon. Let it be realized that no antiseptic in reasonable strength has power in reasonable time to take the place of prolonged use of brush and soap and frequent changes of warm sterile water. This process alone, indeed, continued industriously for thirty minutes will render the hands practically aseptic.

It is immensely better than the perfunctory use of a germicide: if it kills no bacteria, it does as well by removing them. And when this is followed by the prescribed antiseptic solution, left to dry upon the hands, it may be deemed a reasonable disinfection. If, in addition to this, the obstetrician will use rubber gloves sterilized by boiling,—and especially so if he has been about some septic case,—he may then trust that, for himself, he has clean hands and a good conscience, a conscience which in any outcome will not cower his eye or startle his heart.

But having removed from himself the probability of becoming a source of danger to the woman, he must, before making any examination, take like care to render the woman harmless to herself. To be aseptic with himself and septic with the mother is criminal absurdity. He should clip at least the vulvar covering, infectious in the beginning and a constant menace by retention of coagula and discharges afterward. Does she object to exposure? Upon explanation, she consents readily to whatever exposure you deem necessary for her safety. No furthe rexposure in any case should be made than is necessary for the right performance of your duty: not to make this much in every case is wanton disregard of your patient's welfare. Carefully separating every fold, you should wash the vulva and all the region around about for fifteen minutes with soap and water and pledgets of clean cotton, and afterwards bathe the parts with a 1:2000 bichloride solution, and irrigate the vulvar region from above with the solution from a sterile bag. Making the external genitalia aseptic, you remove from the woman the second of the two sources of her danger. For, while there is a possibility of auto-infection by means of bacteria lodged in the vagina by coitus or by self-examination, this source of infection is so rare as to be practically inconsiderable.

If the case has been in the hands of a midwife or other unclean attendant, infection from this source must be assumed as a fact already;and, in addition to the external disinfection, the vagina should be copiously douched with the bichloride solution (1:2000) followed by sterile water.

During the progress of the labor, the parts should be kept covered with an aseptic napkin, and cleansed by antiseptic sponging before examination. Examinations should be as infrequent as certainty of conditions will admit; and the fingers should never be passed into the vagina again until they have first been re-sterilized. Let it bear hard upon your conscience that the source of infection lies outside the vagina; and that rigid asepsis prevents infection. The maternities have made their brilliant and beneficent record and put to shame the private practice of midwifery only by right appreciation of these simple facts.

When the baby is come,—when the labor is over and the mother would rest from her travail, your duties are not yet done. Besides guarding her against the accident of hemorrhage, the physician himself should wash the external parts with the same scrupulous regard for asepsis that has characterized him in the progress of the case. This is a part of your work. Unless, as seldom happens, you have at hand a competent nurse, who has been made as clean as yourself, you must not relegate it to another. With your own hand and eye, you must carefully examine for pelvic-floor lacerations. You may have endeavored judiciously to prevent this accident of labor, and you may have failed in your endeavor. It is an accident which, to considerable extent, notwithstanding the use of every known method of supporting the perineum, occurs in more than 20 per cent. of all first labors, and in nearly five per cent. of all others. You may have attempted to prepare the vaginal outlet by careful and continued backward and outward massage-pressure; but the rigidity may have resisted your efforts. You may have tried to delay the expulsion of the head and to deliver it between pains. Fierce and prolonged contractions, or relative disproportion between presenting part and parturient outlet, may have rendered all your efforts vain. Or if the head is safely through, the damage may be done in the birth of the shoulders. It sometimes happens that the expulsive effort is so intense and continuous that you are unable, in the delivery of the shoulders, to give the perineum the advantage of the cervico-acromial over the bis-acromial diameter. Laceration may occur in consequence of your inability to deliver the posterior shoulder first. And unavoidable lacerations may have occurred in other ways. But it is the physician's business to know if they have occurred; and, if they exist, he must repair them as soon as the mother takes a little rest and the oozing from the torn surfaces is visibly checked.

If lacerations of the cervix have taken place, of these you will attempt to find out nothing, except in cases of profuse hemorrhage, which may come from a cervical laceration extensive enough to involve the circular artery. Only such accident would necessitate or justify immediate inspection and repair of the cervix. For besides the added danger of infection, lacerations of the cervix have a fine tendency to take care of themselves.

Your work so far complete, you should cover the vulva with gauze wrung out of a

1:10,000 bichloride solution; and over this should be aptly placed absorbent cotton or a clean napkin. Let this dressing be changed, a strong boric acid solution being substituted for the bichloride, and re-applied as often as it becomes saturated; and, for several days, the parts at each change should be cleansed with an antiseptic wash: or, rather, irrigated from above with sterile water. Disinfectants should be left for the use of the attendant, and she should be well instructed as to the method and the necessity of cleansing her hands before touching the puerperal woman.

If the mother will use a bed pan for ten days, the vulva will be less an open wound than if she assumes the sitting posture,—a point worthy of insistence if any sort of vulvar covering against infection is worth the using.

In ordinary labors, the physician should remain at the house for two hours after the birth of the baby; and before leaving, when the condition of the mother is good, he should prescribe for her, by way of further prophylaxis, 5 grains of quinine three times a day for three or four days, and ergot and hydrastis with nux vomica for two weeks; and he should enjoin upon her the reasonable necessity of remaining recumbent in bed for three weeks,—I had rather advise four. And this is advised in deference to the following facts: the upright or sitting posture is in no wise essential for proper drainage or the woman's comfort; after labor the womb requires six weeks or more for its perfect involution; the heavy puerperal uterus is easy of displacement and consequent subinvolution, when the woman leaves her bed for any purpose; and "smartness" in the early weeks of confinement is the one fruitful cause of malposition and subinvolution with their numerous evil brood.

As a further aid to early involution, the physician may safely advise after the twelfth day postpartum copious hot vaginal douches once or twice a day. They will give a sense of cleanliness and a feeling of comfort; and their effect, both local and systemic, is every way desirable.

Unless there be some special indication, as we have seen, for vaginal disinfection, no douche should be given antepartum; and, short of the twelfth day postpartum, none should be given, except after operations and instrumental deliveries, or for the arrest of postpartum hemorrhage, or for the prevention of further septic absorption when this is thought already to have begun. In the latter instances the douche should be first vaginal and then intra-uterine through a Fritsch-Bozeman tube.

And yet I have no doubt that the comfort of every woman just delivered would be enhanced by an immediate postpartum vaginal douche of hot sterile water as a part of her cleansing. Nothing but the fear of infection by this procedure forbids its routine use. It would tone a tired and relaxed uterus; it would soothe bruised and wounded tissues; it would wash away clots and possibly shreds which, easily infected, might become a prolific source of infection. If this immediate hot sterile douche were followed three times a day for a week postpartum by a copious warm douche of boric acid, one or two drams to the pint of sterile water, it would be conducive to comfort and beneficial in fact,—provided it were given under rigid aseptic conditions. But in questionable hands it is omitted: so the woman is safer from sepsis if the vagina is left to care for itself when the labor is ended.

If it had been written in the Holy Scriptures that Jonah swallowed the whale, and not that the whale swallowed Jonah, this statement, notwithstanding the disparity between mouth and morsel, would have found easy credence among the faithful, because the faithful would see that all things are possible with Omnipotence. That the whale swallowed Jonah is easy of belief for both mechanical and anatomical reasons. And for valid analogies, indeed, it should not be hard to believe any of the miracles of Scripture, if we consider a moment the wonderful things round about us. That charming old French essayist, M. Montaigne, declared that he accepted them all for the reason that he discovered in his own body greater miracles than Jewish historian or Christian evangelist anywhere records. Physicians may be careless obstetricians sometimes; but, in labors in homes, medical men deliver but a meagre portion of the incoming population. The inevitable tide of domestic immigration flows towards the midwives. The private practice of obstetrics is mainly their work. When one inquires into the character and qualifications of the average midwife, it is little short of miraculous that so many children live and so few women die when the baby comes.

But some one has said that God always takes care of children, fools, and the United States. The birth and splendid growth of our nation declare the Divine blessing attendant upon it; the multitude and fair fortune of fools show that they are loved and held by some mighty hand; and the deep eyes and joyous laughter of children bespeak their easy citizenship in the Kingdom of Heaven. But the mothers of the children, these highest organisms following their highest instinct and fulfilling their highest destiny, who cares for them? God takes care of the mothers also. The makers

of the prayer book recognized this fact and the need of it, when they taught us to pray for all women in the perils of childbirth. Oh! it is wonderful, God's care of mothers from Mary until now!

But I am not sure that the Lord is well pleased that you and I and the people of North Carolina only pray for the mothers in their travail, leaving them in their supreme hour, when most of all they should be the recipients of high-born kindness and the highest benefits of skill and science, to suffer in the hands of superannuation, superstition, blind stupidity, and contented ignorance; in the hands of midwives, careless and unclean, dull or over-wise in their own conceit, pestilential examples of dismal incompetence and inefficiency.

You have seen their work and the wretched fruitage of it. Not long ago I delivered a placenta and checked a hemorrhage and contended four hours with the powers of darkness to re-balance a mother who was sinking away from her children in the sympathetic presence of stolid helplessness. And twice these few months I have fought sepsis following the service of the most experienced and knowing midwife in my community. In January, I drove twelve miles one bitter night to see a mother with babe five days old. She had a chill that morning, I was told, and the babe was having spasms. I found her with sharp temperature, perspiring freely, face anxious, intellect clear, teeth clinched, and head drawn back into her pillow. The child lay on a pillow in a chair near the fire,—cyanotic, generally spasmodic, and spasmodically dyspnoeic,—a pitiable picture. This mother and her babe died within thirty hours after the onset of tetanus communicated to both by the dirty hands of a kind-hearted old negro midwife; who could accurately foretell the number of subsequent pregnancies by counting the lumps on the cord; and would not for anything wash the baby until the afterbirth was come; and would not dispose of the afterbirth without first sprinkling it with salt; and would not sweep under the bed during the lying-in period; lest, forsooth, some dire mishap should surely befall mother or child. To be sure, this stupid midwife is unconscious of her crime; the public takes no account of it; the husband paid her fee and speaks of her kindness to his wife; and the little children know only that their mother was buried when there was snow on the ground.

And why should not the husband, all crushed as he was, pay the midwife and thank her, too? He was poor and she was industrious. She washed the baby and all its belongings; she washed the soiled bedclothes and garments of the wife;she brought in the wood and picked up dirty chips from the wood-pile to keep the room warm and comfortable; and then she warmed her hands and washed the lochia from the genitals. No service was too menial for her willing hands to do. And so she did what she could: she cast in her mite.

This hard problem would be solved by the transfer of parturients to Maternities for childbirth in place of allowing confinement at home. But this solution is impracticable. Limitation of the practice of midwifery to medical men would approach a solution. But this, also, is impracticable for sundry and evident reasons. In most sections, the midwife is a necessity, a necessary evil. But the profoundly ignorant, or criminally wise, and unclean midwife is not a necessary evil anywhere.

In the face of conditions like these, the public plods on, demanding no amelioration. 'Such things be, and overcome us like a summer cloud, without our special wonder.' So men go undisturbed amid the blood and carnage of the battle-field: it is seen so often; it seems so unavoidable; as it is now, it always has been; it is necessary. So the public wears without protest the old clothes of crooked custom. The public is too ignorant to demand amelioration. The public needs to be taught. It is the peculiar province of this Society to teach the public. It always waits to be taught and it is always responsive to your teaching. Let the profession teach the public the importance of a mother's confinement.

Already you have taught the public that anybody is not good enough to treat a fever: teach it now that anybody is not good enough to attend a labor; teach it more,—that only the best obtainable is good enough at a time so full of eager solicitude, so pregnant of immediate possibilities and far-reaching consequences. If you would better the public health, here opens the most fertile field for your efforts.

If this Society would consider the feasibility of some legislation looking to the instruction of midwives, even if that instruction went no further than the teaching and enforcement of asepsis, it would confer a signal and lasting benefit upon women, and entitle itself to the State's amplest gratitude. There must be some balm in Gilead. Surely something better can be done for the average mother when the baby comes; something for safer, stronger motherhood; something for more hopeful and helpful companionship of women with men; something for the betterment of the race in the bearing of stronger babes on the breasts of sounder mothers.

The Effects of X Rays Upon the Blood.

Linser and Helber (Deutche Arch. fur Klin. Medizin.) have experimentally investigated the changes produced in the blood of rabbits as the results of exposure to the X ray. They find that the Rontgen rays exercise a direct influence upon the white corpuscles; the destruction of leucocytes—among which the lymphocytes are the least resistant—is most marked in the circulating blood. This destruction of leucocytes, whether in the blood or in the tissues, produces a secondary change in the blood serum; it enriches it in leucotoxin. The sera derived from rabbits after raying has a destructive effect upon the leucocytes of other animals into which it has been injected: it also can pass from mother to fœtus via the placental circulation. The formative changes that occur in such sera after exposure to the X rays produce an immunizing body, whose action is opposed to that of the leucotoxin; this body is rendered inert by exposure to heat between 55 deg. to 60 deg C. Apart from the direct influence of the rays upon the kidney, nephritides occur. The effect of the Rontgen rays upon the red sells, blood-plates, and hæmoglobin, is slight. The coagulation of the blood is not affected by the leucocytic disintegration set up by the X rays. No specific relation would be established between the action of radium and ultra violet light and the blood changes.

Membranous Colitis.

White (Guy's Hospital Gazette.) in a clinical lecture on this interesting subject, states that the disease is most common among those who have had indigestion and are constipated. It is commoner among the middle and upper classes than among hospital patients. This is quite a definite disease, characterized by considerable abdominal pain, and the passage by the bowel of huge casts of coagulated mucus, which from on the interior of the intestine. They may be a foot or more long. These casts are quite structureless when viewed under the microscope, and adhering to them are a few epithelial cells, which have been dragged off from the intestinal mucous membrane. The best nomenclature for this disease is muco-membranous entero-colitis. It is very doubtful whether any inflammation is present in this disease, which is probably a disorder of secretion, as a result of which excess of mucus is passed. It is much more common in women than in men. It mostly affects young adults or those in early middle life, and it is far more common about the age of thirty than at any other period. When elderly subjects suffer from thisdisease it is generally associated with some unusual condition. The prognosis is favourable, and it rarely causes death. When this condition is present it becomes the duty of the physician to see that malignant disease of the bowel does not exist. In this disease the sigmoid is often found thickened, These patients are distinctly neurotic, and some of them suffer from enteroptosis. It is sometimes associated with appendicitis. Successful treatment consists in keeping the large bowel empty. This may be achieved by giving castor oil. If this cannot be taken, then sulphate of magnesium, sulphate of sodium, or phosphate of sodium, may be tried. Again, calomel may be given instead. Washing out the bowel with water at 100 deg. F. is valuable. Operation may be tried when medical measures fail.

Milky Ascites.

Volpe (Giornale Medico del Ro. Esercito.) describes the case of a recruit, aged twenty-one, who, when fourteen years old, had typhoid fever with malaria, and had since occasionally suffered gastro-entsritis and indefinite abdominal pains.

In August ascites appeared so rapidly that in two days the trousers could not be buttoned; in a week intermittent pulse had developed, with œdema of the legs and diminution of urine. On September 8, 15 litres of straw-coloured ascitic fluid was withdrawn. On the 24th, 12 litres of milky fluid was obtained. The left pleura, as high as the angle of the scapula, contained fluid; the liver, spleen, and heart were normal. There was slight reise of temperature at night, and sweating in the morning. There was no cough or expectoration. In the groins there were small, slightly hard, movable glands. On October 4, 12 litres of milky fluid were withdrawn, and on the 14th fifteen litres that were white in colour with a yellow tint. The fluid had a specific gravity of 1.011, was alkaline in reaction, and did not contain sugar. On standing, the upper part under the microscope shewed abundant granular matter of a fattynature; the lower part contained numerous leucocytes.

After the last tapping the general health improved, the temperature was normal, the fluid disappeared from the pleura. In January the glands in the right groin became larger than those in the left. On deep palpation, a lump was felt in the right side of the abdomen above Poupart's ligament. Treatment with iodide of potash and generous diet, adopted because the trouble was looked on as tubercular in origin, resulted in the patient being discharged in April.

Milky, pseudo-chylous, or chyliform ascites may be due to cancer, cirrhosis or or syphilis of the liver, or to chronic nephritis. But tubercular peritonitis was the cause of most rscorded cases, some of which were treated by puncture, others by laparotomy.

Charlotte Medical Journal

EDWARD C. REGISTER, M. D., Editor.

No. 36 South Tryon Street. - - - -

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THE ROBERT BRUCE MEMORIAL HOSPITAL OF KINSTON, N. C.

The formal opening of this recently erected institution in Kinston, N. C., with the laying of the corner stone of the Elizabeth Parrott Memorial Wards by the Grand Lodge of Masons of North Carolina, in the presence of the Governor of the State and many other distinguished citizens, may well be noted as marking an important epoch in the progress of medicine in Eastern Carolina.

The hospital, which in its various departments will be one of the most complete in the State, is located on a beautiful and extensive park, generously donated for the purpose by Mr. and Mrs. J. A. McDaniel, of Kinston, in memory of their son Robert Bruce. The Charity Annex, or the Elizabeth Parrott Memorial Wards, is physically connected with the private hospital recently opened for general medical and surgical work by Drs. J. M. and W. T. Parrott, of Kinston, N. C., and is their munificent memorial to their deceased mother, the late Mrs. Elizabeth Parrott.

While there has not been the lavish wasteful expenditure of moneys so often seen in the exterior construction of modern hospital buildings, no expense has been spared to render the institution complete in its every important detail for the comfort, convenience, and proper medical and surgical care of suffering humanity.

Being fully conversant with the high order of professional ability of the Drs. Parrott we can but feel that our congratulations are due the people and the profession of that section of the State naturally tributary to Kinston, in having located in their midst an institution of high grade character and officered and managed by such accomplished gentlemen of the profession. Again are we reminded of the manifestly growing disposition on the part of our Southern doctors to provide near the homes of our people hospital facilities where skill and service are the equal of the best, and as good as any to be had on the face of the earth, can be provided at an equivalent or even lessened expense, and without the discomforts and dangers incident to the transporting of invalids by long railway journeys to the great cities of the East.

THE METHODS OF COLLIER'S WEEKLY.

The editor of The St. Louis Medical and Surgical Journal has, in the April issue of this excellent publication, a long and carefully prepared article entitled Pipe-Dreams vs. Facts, in which he takes up a specific list of thirty-two cases, published by Collier's Weekly as authentic instances of deaths or serious illnesses from head-ache powders.

In December a list of thirty-two supposed cases of death or illness from the same cause, was given to its readers, which an investigation by the Proprietary Association of America proved either to be untrue, or, as Mark Twain cabled in regard to the report of his death, "greatly exaggerated." After the publication of these denial-explanations, Collier's Weekly excused itself by stating that the information was published on the authority of reputable newspapers. Thus a partially good cause is weakened in the house of its friends. When direct charges are made, and names and dates given, it is, comparatively, an easy matter to find out the truth, or non-truth, of any incident, and a magazine of repute can not be excused for not making a personal and thorough investigation of its so-called facts.

Out of the list of thirty-two cases, mentioned above, twenty-one are shown to be false, while the remainder have a saving element of doubt, the benefit of which any right-minded court would allow to the accused. Not so, the editor of Collier's Weekly! There is apt to be a ludicrous exposure of ignorance (a quality that has a habit of making itself known,) when a man undertakes to reform or to advocate that about which he knows nothing. But ignorance has no place as an extenuator when libelous matter is published.

The undoing of "The Great American Fraud" is being undertaken by arguments that are easily disproved and clumsily manufactured—and we use the word manufactured advisedly, after going over the array of evidence given.

The article referred to is well worth a thoughtful reading, and it will prove an antidote to undue credulity.

ORGANOTHERAPY.

Organotherapy has made very considerable advance during the last decade, being a revival of ancient theories and superstitions based, however, on scientific theory and physiologic experiment. Plinius states that the Greeks and Romans used the testicles of asses and the semen for impotence; in Albania these organs are used for the same purpose today, as well as for amenorrhea. Paracelsus recommends the spleen for the latter disease. Among barbarous and semi-civilized peoples, as well as among the peasantry in all countries, these customs exist. The Chinese physician prescribes dried mouse and lizard; the native African

uses the liver of snakes, both internally and externally, as an antidote for snake bite, showing the empirical application of an antitoxin; the warrior eats the heart of the lion to give him courage. In southern France raw snails are used for indigestion, as well as a luxury when cooked; in Cornwall and Devonshire earthworms are given for the same purpose, and are probably effective, as they contain a very powerful digestive ferment. In the materia medica pepsin, pancreatin, ingluvin, codliver oil and Fels Bovis are official, all of which are animal extracts connected with the digestive functions, so that to the use of other secreting organs, or their extracts, is but a short step, and today the thyroid and suprarenal glands have obtained a permanent place in therapy, while the use of other organs is still subjudice.

Theoretically, the administration of the active principle of any gland should be a specific for any pathologic condition, the result of a glandular insufficiency, and eliminating the effects of complications, this is true. The thyroid is a specific in myxedema and cretinism, provided there is no involvement of other organs, and that the drug is absorbed into the system in an active condition, the latter being a point often overlooked in treating these diseases. It should be remembered that thyroiodin, the active principle of the gland, is precipitated by acids, but is soluble in alkaline solutions and in solutions of neutral salts; in many cases of the diseases under consideration, the intestinal tract is acid through its whole length, owing to constipation and faulty digestion. Pepsin and hydrochloric acid will digest protein bodies in the test tube as well as in the stomach, and if administered properly and continuously, are a specific for absence of these two substances from the succus stomachi. The hydrochloric acid has a further and more important function; upon its entrance into the duodenum it stimulates the secretion of secretin, the ferment which is absorbed into the general circulation and serves to stimulate the pancreas to secretion; further, the hydrochloric acid stimulates the secretion of enterokinase the ferment which converts trypsinogen into active trypsin; it is probable that it also stimulates the secretion of erepsin, a ferment which, though occurring in every organ of the body, is found by far the largest quantity in the intestine and in the kidney having a peptone splitting power. If hydrochloric acid or pepsin be absent or decreased in quantity in the succus stomachi it is probable, and analyses have proven, that rennin and invertin are also deficient. Recently Pawlaw, of St. Petersburg, and his school have endeavored to prove that rennin and pepsin were the same ferment, a view contradicted by Dr. Hemmeter, of the University of Maryland; be that as it may, there is no doubt that rennin has other functions to perform besides simply clotting milk, the very fact of its presence in the succus stomachi from infancy to old age goes to show that it is necessary to digestion, and further, it exists in the stomachs of both birds and fishes, neither of whom at any period of their lives are on a milk diet. Definite experiments on the presence of cane sugar in the stomach contents under pathologic conditions are lacking, but there are many patients in whom cane sugar produces marked indigestion, due to its not being inverted. Theoretically and practically we have a specific remedy for achylia, if we administer a sufficient quantity and at frequent intervals during digestion an artificial succus stomachi containing hydrochloric acid, pepsin, rennin, calcium chlorid, and invertin, the failure of hydrochloric acid alone, or with pepsin, to relieve cases of achylia is due to the absence of the other ingredients of normal succus stomachi and to imperfect methods of administration.

The administration of Fels Bovis has fallen into disrepute, probably from the inability of the patient to take a sufficient quantity. Theoretically, if the bile contains a sufficiency of sodium glycocholate and taurocholate the cholesterine and bilirubinate of calcium, precipitation of which either in the hepatic bile ducts or in the gall bladder is the cause of gall stone, will be held in solution, consequently no stones will be formed; further, if an excess of the bile acids be present in the bile, stones already formed will be dissolved, therefore sodium glycocholate mass should be a specific for gall stones, which is borne out by clinical experience.

Pancreatin does not give very satisfactory clinical results, the reason probably being that it is effected in its passage through the stomach, and that the cause of the pancreatic insufficiency may lie in the absence of secretin or enterokinase, in which case its administration could not possibly do any good.

Suprarenal extract has not found much of a field in internal medicine; in Addison's disease where it should theoretically be a specific it has given practically no results. Its use in Basedow's disease, owing to its physiologic action being directly opposed to that of the thyroid, has given some results. From its power of contracting the blood vessels, and thus arresting hemorrhage, it is much used in minor surgery, some good results having also been obtained in hematemesis and hemoptysis.

There can be no doubt that the testicles

and ovaries have a distinct function other than the secretion of the substances necessary for procreation. The effect of castration on the mental and physical condition is well known, especially in the arrest of puberty. The Russian chemist Phoel obtained certain results by the injection of 'spermin' extracted from testicles which he claimed was the active principle, but they have not been confirmed by other experimenters. Overian extract has been used during the menopause, in chlorosis and dysmenorrhea.

The thymus has recently been shown to have some connection with the organs of generation, and has been given in Basedow's disease. Bone marrow has also its advocates in anemia, but the clinical results are conflicting. Desiccated brain and cord have been used by hypodermic injection in locomotor ataxia and good results claimed. The parotid gland is claimed to have some connection with menstruation, and has been given in dysmenorrhea. Extracts of the spleen and prostate have also been tried in various diseases, but without apparent benefit.

The antitoxins are a form of organotherapy and have given some very brilliant results, and our hopes of successfully combating those diseases which up to the present have resisted medical science are placed upon the development of this form of therapy.

HOUSE OF DELEGATES.

Minutes of the Third Annual Session (Fifty-third of the Society) held in Charlotte, N. C., May 29, 30 and 31, 1906.

The third regular annual session of the House of Delegates of the Medical Society of the State of North Carolina convened in the Criminal Court Room, County Court House, in the City of Charlotte, N. C., on May 29, 1906, at 3:15 o'clock, p. m.

Called to order by the President, Dr. Edward C. Register, of Charlotte, N. C.

Roll-call by the Secretary, Dr. J. Howell Way, of Waynesville, N. C., denoted the presence of the following Members of the House of Delegates:

President: Dr. E. C. Register, of Charlotte.

Vice-Presidents: Drs. L. B. McBrayer, of Asheville, and W. O. Spencer, of Winston, present.

Vice-President: Dr. W. H. H. Cobb, Jr., of Goldsboro, absent.

Secretary: Dr. J. Howell Way, Waynesville.

Treasurer: Dr. G. T. Sikes, Grissom.

COUNCILLORS.

First District—Dr. Oscar McMullan, Elizabeth City.

Second District—Dr. James M. Parrott, Kinston.

Third District—Dr. Frank H. Russell, Wilmington.

Fourth District—Dr. Albert Anderson, Wilson.

Sixth District—Dr. Hubert A. Royster, Raleigh.

Seventh District—Dr. E. C. Register, Charlotte.

Eighth District—Dr. David A. Stanton, High Point.

Ninth District—Dr. Thos. E. Anderson, Statesville.

Tenth District—Dr. James A. Burroughs, Asheville.

Dr. J. F. Highsmith, Councillor for the Fifth District noted absent in Europe.

Delegates from the county societies noted as follows:

First District.

Currituck: ————————

Pasquotank-Camden-Dare: Dr. Oscar McMullan.

Perquimans: Dr. T. S. McMullan.

Gates: Dr. W. O. P. Lee.

Chowan: Not organized.

Washington: Dr. W. H. Ward.

Tyrrell: Not organized.

Hyde: Not organized.

Second District.

Hertford: Dr. J. R. Parker.

Martin: Dr. W. E. Warren.

Pitt: Dr. J. E. Nobles.

Bertie: Dr. W. J. Harrill.

Beaufort: Dr. Jno. C. Rodman.

Lenoir: Dr. R. A. Whittaker.

Jones: ————————

Craven: Dr. R. S. Primrose.

Pamlico: Dr. G. S. Atmore.

Carteret: Dr. L. C. Adams.

Third District.

New Hanover: Dr. G. G. Thomas.

Pender: ————————

Onslow: Dr. Cyrus Thompson.

Duplin: Dr. J. L. Lane.

Bladen: Dr. R. Sam'l. Cromartie.

Sampson: Dr. G. L. Sikes.

Columbus: ————————

Brunswick: ————————

Fourth District.

Northampton: Dr. Mahlon Bolton.

Halifax: ————————

Nash: ————————

Edgecombe: ————————

Johnston: Dr. G. J. Robinson.

Wilson: Dr. W. S. Anderson.

Wayne: Dr. M. E. Robinson.

Greene: Dr. W. W. Whittington.

Fifth District.

Cumberland: Dr. A. S. Rose.

Robeson: Dr. J. D. Croom.
Scotland: Dr. K. A. Blue.
Richmond: Dr. E. C. McEachern.
Montgomery: Dr. C. Daligny.
Moore: Dr. G. McLeod.
Harnett: Dr. J. W. Halford.

Sixth District.

Chatham: ————————
Wake: Dr. W. H. Boone, Dr. Z. M. Caviness.
Franklin: Dr. R. F. Yarborough.
Warren: ————————
Vance: Dr. F. R. Harris.
Granville: Dr. Ben. K. Hays.
Person: ————————
Caswell: Dr. M. H. McBryde.
Alamance: Dr. G. W. Long.
Orange: ————————
Durham: Dr. T. A. Mann.

Seventh District.

Anson: ————————
Union: Dr. R. Armfield.
Stanly: Dr. T. A. Hathcock.
Mecklenburg: Dr. I. W. Faison, Dr. R. E. Mason.
Cabarrus: Dr. J. E. Smoot.
Lincoln: Dr. R. W. Petrie.
Gaston: Dr. D. A. Garrison.
Cleveland: Dr. W. F. Mitchell.
Rutherford: Dr. E. B. Harris.

Eighth District.

Rockingham: Dr. W. P. McGehee.
Guilford: Dr. J. W. Long, Dr. C. W. Banner.
Randolph: ————————
Forsyth: Dr. H. S. Lott.
Stokes: ————————
Surry: Dr. J. B. Smith.
Yadkin: Dr. M. L. Matthews.
Alleghany: ————————
Wilkes: Dr. J. L. Myers.
Ashe: ————————

Ninth District.

Davidson: Dr. C. A. Julian.
Davie: Dr. J. W. Rodwell.
Rowan: Dr. C. M. Poole.
Iredell-Alexander: Dr. H. F. Long.
Catawba: ————————
Caldwell: Dr. A. A. Kent.
Watauga-Mitchell: ————————
Burke: Dr. I. M. Taylor.

Tenth District.

Buncombe: Dr. M. H. Fletcher.
Yancey: Dr. W. P. Whittington.
McDowell: Dr. M. F. Morphew.
Madison: ————————
Polk Henderson: Dr. L. P. Russell.
Haywood: Dr. F. M. Davis.
Transylvania: Dr. Goode Cheatham.
Jackson: Dr. C. Z. Candler.
Swain: Dr. D. R. Bryson.
Mason-Clay: ————————
Graham: ————————
Cherokee; Dr. S. C. Highway.

After the calling of the roll the accredited list of Delegates as reported by the Secretary was declared the official roster for the session.

The annual address of the President delivered at the morning session of the general meeting before the largest membership in attendance upon any previous of the fifty-two sessions of the State Society was called up and referred to the House of Delegates. After cordially commending the address to the thoughtful consideration of the profession, it was on motion referred to a committee composed of Drs. Albert Anderson, James M. Parrott, J. Howell Way.

Dr. J. Howell Way presented the report of the Secretary as follows:

CHARLOTTE, N. C., May 29, 1906.

To the Officers and Members of the House of Delegates of the Medical Society of the State of North Carolina:

GENELEMEN: I shall not consume the time of this body with a lengthy report of the various matters which have occupied much of my time and attention during the past year. Suffice it to say the general affairs of the Society continue in excellent condition, and the condition of our organization units, the county societies, is all of the time improving. With the continued growth of the interest in the local societies, there is an inevitable increase in the interest felt in the State society, evidence of which we see in the very extensive program presented for this meeting.

At the present date there are eighty-four chartered county societies, with an enrolled membership of a little more than 1200. This includes within our sphere of influence a little more than four-fifths of the active practitioners of medicine in the State. In many of these societies most excellent work is being done, and local professional standards are being raised higher, and a growing better feeling existing between the different members of the profession. In the more sparsely populated counties there are great difficulties in the way of making the societies as successful as in the larger counties, but I have everywhere encouraged the few to stand together, realizing that where there were only a few practitioners it was especially necessary that there should be some local tie to bind them together for their own interests, for the good of their clientele, and for the betterment of society in general.

Some of these local societies are officered by zealous, active men, who see in them great powers for good, and consequently they are all of the time working and striving for better things. With this type of a society, your Secretary has no difficulty in

securing reports, or other local information desired. There are others who are not really interested in the work of the local society or of the State organization, and their reports are not so readily forthcoming or so favorable. The gentlemen will pardon the suggestion of the Secretary that a request for information relative to the local affairs of the profession is always based on some proposition useful and beneficial to the interests of the society, and should receive immediate attention. County societies are also kindly advised to see to it that only men who will attend to business are honored with official position. Notwithstanding the unnecessary effort your Secretary has been compelled to make to secure the annual reports of the county societies in advance of this meeting, there are yet several of the county organizations which have not sent in their official reports, though provided with blanks the third time, and in no case less than five gentle requests for their return. A dilatory spirit like this naturally suggests why some members of our profession do not succeed in a business way, and brings the sober reflection that after all we really each of us probably get just about what we deserve from our patrons, for it is inevitable that a lack of business methods along one line is likely to be manifested in others as well.

However, I wish to say in this connection, that at this date I have in hand a larger number of the annual reports of the county societies than I have ever been able to secure prior to any previous meeting of the State society, nearly four-fifths of the county societies having filed their reports with the Secretary to date. And in all probability before the close of the year all will have reported. I mention this matter because it will explain to a few gentlemen present why they have not received copies of the preliminary program of this meeting. It is to be remembered that the membership of the State society is the membership of the component county societies, and unless your Secretary receives regular reports from the local branches of this society he cannot be expected to know who the local members are. The volume of the necessary correspondence of the Secretary's office has greatly increased over former years, and is accounted for in the greater amount of interest manifested in the work of the society over the State.

1200 copies of the Transactions of 1905 were published, and almost all have been sent out. A few copies yet remain on hand, as the invariable rule has been followed of not sending the volume to any members except those reported as having paid their dues to the Treasurer. The only exceptions to this have been review copies and copies sent other State organizations. The publication of the annual volume is, as in former years, delayed very largely by the tardiness of the gentlemen reading papers at our annual meetings in sending them in to the Secretary. While the 1905 volume was in press I had the forms opened twice to admit to publication papers read at Greensboro the May previous, and the order for the binding covers was changed by telegram in December to permit the admission of another paper from one of our distinguished members. I submit gentlemen, in all fairness, that this is an imposition on the society, and that our members should comply with the rules which require the papers read at the annual meetings to be turned over to the society at the time of presentation before the body at the annual sessions. Were this rule adhered to, it would be possible to publish the volume months before its appearance as it now is.

The "insurance resolutions" adopted by the State society at the 1905 session have been the subject of much comment, consideration and correspondence during the year. In addition to securing their publication in various journals I sent to each of our members a printed copy. The county societies have had much discussion along these lines, and the insurance companies have also taken a pretty active hand in the matter. The action of the county societies has in most instances, where action has been taken, been in accord with the spirit of the resolutions recommended to their consideration by the State society at the Greensboro meeting, and I firmly believe that with a disposition on the part of the leading members of the profession over the State to stand squarely by the resolutions that there will be an inevitable acceptance by the companies of the five dollar fee for all regular old-line examinations for life insurance. This matter has assumed national proportions, and much attention has been given it in other States, as well as in our own, and it is expected to come up for consideration and expression of opinion by the American Medical Association at its forthcoming meeting in Boston next week. In this State with few exceptions the societies which were well organized promptly adopted the suggestion of this body. In others the suggestions were modified so as to permit the examining of applicants where no urinalysis was required for a fee of $3.00. In some nothing was done.

It was very interesting to note the activity of some of the insurance companies in this matter here in this State. Some of them kept pace of what the county societies were doing, and very kindly, wherever there

appeared any sentiment favorable to working cheaply for the insurance people, kept the other counties advised of such action. This certainly showed a disposition to stand for what might be termed their business interests on the part of the companies, which is to be commended to the members of our profession who unsuspectingly agreed to what the astute managers of the companies suggested would be for "real interests of the profession!" Several times it was suggested to me that certain of the companies wished to send lobbyists here to this meeting of the State Society to present their wishes in the premises. I have not approved of or advised any motion of this character, feeling that this matter of insurance examination fees, like other medical fees, is a matter about which the State Society may, and properly should, express an opinion to the county societies, and then permit them to regulate their own fees to suit themselves. It is very evident, to one who has followed the efforts of the companies in times of unparalleled general prosperity in the country at large, to reduce the fees of physicians which were already really too small, considering the value of the services they rendered the companies; I repeat, it is very evident that the profession all over the nation is aroused in this matter, and with firmness on our part there can be no doubt that less than one-third of the different companies who are in this reducing-fee proposal, will be compelled to do one of two things: Pay a proper fee, or accept the services of an undergrade class of men who, with low standards of professional ethical principles, are willing to admit the inferior value of their own professional service and to underbid their fellow-practitioners. To a man who thinks critically it is highly probable the former will be the action of the companies. The present duty of the profession would appear to be simply to stand firmly for a reasonable compensation.

There has, during the year past, been an unusual amount of attention paid the social features of the doctor's life in the fact that more than thirty of the county societies of the State have had annual dinners or more formal banquets at which the membership were entertained, and thus a more fraternal sentiment promoted among the members of the medical guild.

In conclusion, I would remind the members of this society that the future of our work as a society lies with the individual membership, and our success will depend wholly upon the amount of interest the individual member may have in the work of his profession as advanced by medical organization, and not upon constitutions or laws, or constructions of the same. To reach the individual member is our duty. While with the growth of the society and the development of the various questions which come up for solution in a body so large as ours is now, the entire time of the Secretary could well and profitably be given to his duties, yet we all know this is an impossibility, and any man who fills the duties of the position in even the imperfect way of your present incumbent will hardly fail to have done some things which he ought not to have done and assuredly to have left undone many things he should have done. I congratulate you on our continued prosperous condition, on the growing influence and prestige our most noble profession, and bespeak your kindly condoning of the shortcomings as an official of your secretary.

Fraternally submitted,

J. Howell Way, Secretary.

On motion the report of the Secretary was received and its recommendations adopted by unanimous vote.

Reports of the Councillors being called for, verbal reports were submitted from Drs. Oscar McMullan, Parrott, Russell, Stanton, Royster, T. E. Anderson, A. Anderson, and Burroughs, each of whom spoke hopefully of organization conditions in his district, commended the work of the local county societies, and advised that efforts be made to continue all measures calculated to promote an active local interest in the affairs of the profession, believing the increased interest growing out of the county societies operating greatly to the advancement of the profession's best interests throughout the State.

Some remarks relative to the practical workings of the county societies were made.

It being in order the President announced that the delegations from each Councillor's District should select their member of the Committee on Nominations and report.

Dr. Whittaker asked the President for a ruling as to who was eligible to serve on the Committee on Nominations.

Discussion ensued.

The President ruled in answer to Dr. Whittaker that any member of the House of Delegates, be he Councillor or delegate from a county society or other member of the body of the House of Delegates, selected by a majority of the members present from a Councillor's District, was eligible to serve on the Nominating Committee.

Dr. Whittaker insisted that under his view of the laws no one except a delegate from a county society was eligible to serve as a member of the Committee on Nominations and discussed the question at length, advocating that only delegates elected as such by county societies should serve on the Committee on Nominations.

Dr. Mason moved that no one be selected to serve as a member of the Nominating Committee except a delegate from a county society.

Dr. Fletcher asked for a ruling of the chair on the point of the legality of any one to serve except a delegate from a county society.

The chair ruled the matter was wholly in the hands of the members from the separate districts, who could exercise their own pleasure in selecting their representative on the committee.

Dr. Faison urged that no one except delegates from county societies were eligible to serve on the Nominating Committee, and contended that no one except delegates elected from county societies is entitled to a seat in this body.

Dr. Fletcher raised the point of order as to the right of any one except delegates from county societies to serve on the Nominating Committee.

Dr. Oscar McMullan moved that no one except delegates be placed on Nominating Committee and urged an appeal from the ruling of the chair to the effect that Councillors were eligible to serve on the Nominating Committee.

The President then put the question as to sustaining the decision of the chair that Councillors were entitled to sit with the members of the delegates from their respective districts and to participate with them in the selection of the members of the Nominating Committee.

The chair was not sustained.

Dr. J. M. Parrott rose to a question of personal privilege and asked if it was now definitely decided that a Councillor could not participate in the selection of the member from his own district.

He was advised that under the recent decision of the House a Councillor could not.

General discussion ensued as to the rights of Councillors to sit in the House of Delegates or to participate in any of its proceedings, it being strongly contended by some of the delegates that the "ex-officio membership" conferred on others in the constitution than elected delegates from the county societies only carried with it the privilege of attending the meetings of the House of Delegates, but without voice or vote in the deliberations of the body.

The delegates from the various Districts consulted together and designated the following gentlemen to compose the Committee on Nominations for the session:

First District—Dr. W. H. Ward.
Second District—Dr. Jno. C. Rodman.
Third District—Dr. Cyrus Thompson.
Fourth District—Dr. M. E. Robinson.
Fifth District—Dr. K. A. Blue.
Sixth District—Dr. Ben. K. Hays.
Seventh District—Dr. I. W. Faison.
Eighth District—Dr. J. W. Long.
Ninth District—Dr. C. M. Poole.
Tenth District—Dr. W. P. Whittington.

On motion the reports were approved and the designations as made were approved by the House.

Dr. Thos. S. McMullan presented the following resolutions and moved their adoption:

Whereas, a resolution advising a regulation of fees for life insurance examinations was passed by the Medical Society of the State of North Carolina in 1905, and, whereas, the developments of the past year has shown that for its greater usefulness and surer practice some modification is advisable.

Resolved, that the House of Delegates recommend to the Society, now in session, that as amendatory to aforesaid resolution, the county societies be advised that a reduction of the fee from $5.00 to not less than $3.00 where no urinalys's is required will not be construed as subversive of the intent and spirit of the resolutions originally passed in 1905.

Considerable discussion ensued, participated in by Drs. Whittington, T. S. McMullan, Oscar McMullan, Faison, Armfield, Whittaker, R. DuVal Jones, T. A. Mann, Yarborough, Halford, Z. M. Caviness, K. A. Blue, A. S. Rose, Hill, M. E. Robinson, Cyrus Thompson, and others.

A motion to lay the resolutions on table was seconded and announced as carried. Questions as to vote raised and division called for. The resolutions were read by request again.

A vote was again taken and the resolutions of Dr. McMullan declared lost by more than three-fourths present voting against their passage.

At 6 p. m. a recess was on motion ordered until Wednesday morning.

WEDNESDAY MORNING, MAY 30, 1906.

The House of Delegates was called to order at 10 o'clock, a. m. President Register in the chair.

Dr. M. H. Fletcher asked to be excused from further attendance and desired the seating in his place of the alternate delegate, Dr. W. L. Dunn. Agreed to.

Dr. Albert Anderson of the Committee on President's essay asked for further time to complete the report. Granted.

Dr. Poole for the Rowan county Medical Society asked that the time of holding the annual meeting of the State Society be changed from the spring to early autumn. Discussion by Drs. Oscar McMullan and others. Motion lost on being put to vote.

Dr. Lott moved the advisability of the

State Society meeting in sections as does the American Medical Association. Opposed by Drs. O. McMullan and Mason.

Dr. Thos. S. McMullan urged the advisability of the same, and insisted the large attendance made it highly necessary in order to facilitate the work of the organization and called for the question on his motion to refer the matter to a committee of three to report thereon. Seconded. Carried. Drs. Thos. S. McMullan, Cyrus Thompson and C. A. Julian were designated the committee.

Dr. Cyrus Thompson for the Committee on Nominations presented the following as the choice of the committee for the various officers and committees for the ensuing year:

President—Dr. S. D. Booth, Oxford.

First Vice-President—Dr. C. M. Strong, Charlotte.

Second Vice-President—Dr. J. E. McLaughlin, Statesville.

Third Vice-President—Dr. W. F. Hargrove, Kinston.

Secretary—Dr. D. A. Stanton, High Point.

Treasurer—Dr. H. McKee Tucker, Raleigh.

Orator—Dr. L. B. McBrayer, Asheville.

Essayist—Dr. E. T. Dickenson, Wilson.

Leader of Debate—Dr. C. W. Mosely, North Wilkesboro.

Councillor Eighth District—Dr. J. B. Smith, Pilot Mountain.

Members House of Delegates American Medical Association—Drs. W. J. Lumsden, Elizabeth City; James M. Templeton, Cary.

Committee on Public Policy and Legislation—Drs. R. H. Lewis, Raleigh; David T. Tayloe, Washington; J. E. Brooks, Greensboro; (ex-officio) Sam. D. Booth, Oxford, D. A. Stanton, High Point.

Committee on Publication—Drs. D. A. Stanton, High Point, (Ex-officio); T. M. Jordan, Raleigh; Wm. A. Graham, Durham.

Committee on Scientific Work—Drs. Wm. DeB. MacNider, Chapel Hill; H. S. Munroe, Davidson; (Ex-officio) D. A. Stanton, High Point.

Committee on Finance—Drs. J. T. J. Battle, Greensboro; Frank Duffy, New Bern; J. H. Marsh, Fayetteville.

Committee on Obituaries—Drs. R. D. Jewett, Winston; A. S. Pendleton, Henderson; F. H. Holmes, Clinton.

Delegates to Mississippi Valley Medical Association—Drs. J. Howell Way, Waynesville; J. E. Stokes, Salisbury; R. S. Young, Concord; D. A. Stanton, High Point; W. A. Munroe, Sanford; W. C. Steel, Mount Olive.

Delegates to Virginia Medical Society—Drs. Albert Anderson, Wilson; H. A. Royster, Raleigh, H. H. Dodson, Greensboro; H. F. Long, Statesville; I. M. Taylor, Morganton.

Delegates to South Carolina Medical Association—Drs. E. C. Register, Charlotte; D. M. Prince, Laurinburg; R. B. Hunter, Kings Mountain; J. M. Faison, Mount Olive; D. W. Bullock, Wilmington.

Members State Board of Examiners for Nurses—Drs. Jno. G. Blount, Washington; J. E. Ashcraft, Monroe.

Place of meeting in 1907:

Morehead City.

Chairman of Local Committee Arrangements, Meeting 1907:

Dr. W. E. Headen, Morehead City.

Dr. T. S. McMullan moved to amend the report of the Committeee on Nominations so as to include as an additional member of the committee on Public Policy and Legislation, Dr. Geo. G. Thomas.

Dr. Cyrus Thompson agreed that Dr. Thomas would be a most valuable addition to the committee. Dr. Whittaker also stated that he favored the addition of Dr. Thomas. On motion the report was so amended.

On motion the report of the Committee on Nominations was adopted unanimously.

Dr. Oscar McMullan moved a vote of thanks to Dr. J. Howell Way for his markedly efficient service to the Society as its Secretary for the past four years, and to Dr. Sikes for his equally excellent work as Treasurer.

Dr. M. Eugene Street seconded the motion, and did so, he said, with great pleasure, as the retiring Secretary had been one of the most efficient officers he had ever known.

Dr. Albert Anderson seconded the motion and briefly expressed his regret at the retiring of the Secretary from a post he had filled with great credit to himself and honor to the Society.

Dr. J. W. Long stated that it afforded him "unusual pleasure to second the motion, as he had always held Dr. Way in the highest esteem, and unhesitatingly stated his opinion that he had been the most efficient Secretary the State Society had ever had."

Dr. Whittaker also stated his pleasure in seconding the motion, both as to Dr. Way and Dr. Sikes.

Motion adopted unanimously.

Dr. James M. Parrott tendered his resignation as Councillor for the Second District, and stated that he felt he could retire at this time leaving the affairs of the District in good shape.

The House declined to accept the resignation.

The Secretary of the State Board of Medical Examiners presented the following, which was received with thanks and ordered printed in the Transactions and the at-

tention of the county Societies invited thereto as being the correct and proper position for the State Board of Medical Examiners to take in this important matter affecting both the welfare of the general public and the honor of the medical profession. The resolution of the Board of Medical Examiners is as follows:

The Board of Medical Examiners of the State of North Carolina, being in forty-fourth regular annual session, unanimously pass the following:

Resolved, That the Secretary of the Medical Society of the State of North Carolina be and is hereby requested to communicate to the various county Medical Societies of the State of North Carolina that the Board of Medical Examiners believe it to be their duty, and that they will on presentation of sufficient evidence rescind the license of any physician who is in any way grossly immoral, or who is a drug or alcohol habitue to a degree which may cause him to be a menace to the welfare of his community.

The regular annual report of the State Board of Medical Examiners, exhibiting in detail the work of the Board during the recent session, was also presented and ordered printed in the annual volume of Transactions.

The President announced that in compliance with suggestions made at the 1905 session of the Society he had during the year appointed as special committee on State Society for the Prevention of Tuberculosis the following gentlemen of the Society: Drs. M. L. Stevens, Asheville; R. H. Lewis, Raleigh; Jas. M. Parrott, Kinston; C. M. Strong, Charlotte; J. Howell Way, Waynesville; W. H. H. Cobb, Goldsboro; Albert Anderson, Wilson; Ben. K. Hays, Oxford; Geo. G. Thomas, Wilmington; James A. Burroughs, Asheville; Chas. A. Julian, Thomasville; Watson S. Rankin, Wake Forest; and stated that a meeting of the Committee with others interested would be held during the session of the Society.

Dr. Cyrus Thompson presented the following:

Petition from the Onslow county Medical Society to the House of Delegates of the N. C. State Medical Society:

1st. Amend Section 1, Article VIII, of the Constitution of the North Carolina State Medical Society as follows:

After the word "Secretary" insert the words "Reading Clerk."

2nd. Amend Section 2, Article VIII, of the Constitution, etc., as follows:

After the word "Secretary" insert the words "Reading Clerk."

1st. Amend the By-laws of the North Carolina State Medical Society as follows, by adding at the close of Chapter IV:

"Sec. 5. It shall be the duty of the Reading Clerk to attend the sessions of the Society, and to read any papers presented only upon request of the member presenting the paper."

Amend the By-laws of the North Carolina State Medical Society, Chapter X, Section 1, by adding at the end of said section the following:

"And the chairman of each of the foregoing sections shall be privileged during the reading and consideration of papers in his section to occupy a seat by the President, and with him have joint control of the program.

Dr. Thompson then moved the amendment of the By-laws of the Society to conform to the suggestion contained in the petition from Onslow county Society, and discussed the very great advantages to be derived from having a "reading clerk" for the Society.

Dr. Ivey discussed the proposed measure also, and suggested it be referred to a special committee. This was agreed to and the matter was so referred.

The proposition to enlarge the functions of the Chairmen of Sections contained in the resolutions was also approved and referred for the consideration of the same committee to be appointed later by the President:

The following compose the committee to consider the matier:

Drs. T. S. McMullan, Geo. G. Thomas, I. M. Taylor.

Dr. W. P. Whittington presented the following from the Buncombe county Medical Society, and moved that the State Society approve the same:

COMMITTEE REPORT AND RESOLUTIONS ADOPTED BY THE BUNCOMBE COUNTY MEDICAL SOCIETY, MAY 21st, 1906.

Whereas, It is the duty of every physician to guard the public health and to instruct the public in matters of hygiene and sanitation;

Whereas, The unrestricted manufacture and sale of patented and proprietary medicines, with their fraudulent claims, and the devices used in advertising the same are a menace to the public health:

Whereas, The American Medical Association, through its Committee on Pharmacy and Chemistry, is making a heroic fight against the indecent, unscrupulous and avaricious system of prescribing, advertising and selling nostrums; therefore, be it

Resolved, That the Buncombe County Medical Society heartily approve of the work being done by the Committee on Pharmacy and Chemistry of the A. M. A., and the great educational campaign being carried on by the Ladies' Home Journal, Col-

lier's Weekly, Everybody's Magazine, the Druggists' Circular, the Farm Journal and other lay publications, in their fight against the fraud and deception practiced in the manufacture and sale of secret remedies.

Resolved, That it condemn the slovenly, unscientific and stultifying practice of physicians prescribing or sanctioning the use of medicinal agents of whose formulæ and composition they are ignorant.

Resolved, That it deeply deplores and heartily condemns the methods employed by certain druggists in advertising, both in public places and in the press, secret remedies, for which unscientific and fraudulent claims are made, and who thus necessarily tend to encourage ignorance and deception, and that the Society request them to cooperate with the medical profession in their fight against the nostrum evil.

Resolved, That the Society, in the interests of public health and common decency, recommend to the Board of Alderman of the City of Asheville, the passage of such ordinances as will prohibit the indecent and fraudulent advertising of secret remedies on bill-boards and in other public places; and also prohibit the distribution of free samples of secret and possibly poisonous preparations.

Resolved, That the proposed act to regulate the manufacture and sale of patent and proprietary medicines, as published in the Journal of the A. M. A., of Feb. 3, 1906, p. 374, meet with the hearty approval of this Society, and the delegates of this Society to the N. C. State Medical Society are hereby instructed to have these resolutions read before that body, with the request that the Committee on Legislation make every effort to secure the passage of this, or some similar bill, by the State Legislature.

Resolved, That a special committee be appointed to continue in the interest of these resolutions, and report to this Society, from time to time, as occasion may require.

Resolved, That a copy of these resolutions be sent to each member of this Society; to each County Society of this State; to the Journal of the A. M. A., and the above named lay periodicals; to each of the druggists of Buncombe county, N. C., and to the Board of Alderman of the City of Asheville, N. C.

H. H. BRIGGS,
LAURENCE E. HOLMES,
J. H. WILLIAMS.
GAILLARD S. TENNENT,
Secretary.

Dr. Mason seconded Dr. Whittington's motion relative to the Buncombe County Medical Society resolutions, and urged that the Society place itself on record as desiring our legislators, both State and national, to use every possible legitimate means to place on the statute books laws covering completely the various needs suggested in the Buncombe County Society communication.

Dr. Faison thought we had already urged our congressmen to support "pure food legislation," but thought the motion was along proper lines.

Dr. W. P. Whittington discussed "nostrum legislation" and urged adoption of the resolutions presented.

Dr. Cyrus Thompson favored the resolutions and related a humorous incident relative to the sick wife who took "three bottles of a certain medicine, &c."

Dr. Mason's amendment was adopted, after which the resolutions as presented by Dr. Whittington were approved by the House.

Dr. Mason urged the members of the Society to exercise care and study closely the remedies they prescribed that we might eliminate the too prevalent tendency to carelessly prescribe remedies, the composition of which was not known to the profession.

It was reported to the House of Delegates that the committee on the State Society for the Prevention of Tuberculosis appointed by the President had met during the session and effected the organization of The North Carolina Society for the Prevention of Tuberculosis, which would hold annual meetings at the same time and place as the State Medical Society.

On motion a recess was ordered until Thursday a. m. subject to the call of the President.

THURSDAY MORNING, MAY 31, 1906.

The House of Delegates met on the call of the President at 11 o'clock, a. m.

A communication from the Board of Medical Examiners was presented advising the Society of the resignation from the Board of Dr. Geo. W. Pressly, on account of his having accepted a call to one of the chairs in the North Carolina Medical College, and not deeming it in harmony with the established sentiment of the profession in this State to remain a member of the Examining Board while engaged in medical teaching. The House was also advised of the election to fill the vacancy caused by the resignation of Dr. Pressly, by the remaining members of the Board, of Dr. G. T. Sikes, of Grissom, the late efficient Treasurer of the State Society, and his assignment to the former duties of Dr. Pressly as Examiner in Chemistry and Pharmacy and Secretary to the Board of Examiners.

The action of the Board of Examiners was approved.

Dr. Oscar McMullan called attention to the fact that the House of Delegates at the session of the day previous had, in adopt-

ing the report of the Nominating Committee, elected two members of the House of Delegates of the American Medical Association, when in fact it appeared that at the meeting of the Society in 1905 the two members elected were elected for two years, the regular term of service in the position, and suggested that the House rescind its action in electing these gentlemen.

Discussion followed.

Dr. Way suggested the easiest way to adjust the matter was for the members elected in 1905 for two years to resign, which would more readily enable the House to arrange the representation in accord with the expressed wishes of the Committee, and in accordance with his suggestion the resignations of Drs. J. Howell Way and James A. Burroughs as Members of the House of Delegates of the American Medical Association for the terms ending May, 1907, were tendered the House.

After some discussion, on motion of Dr. McMullan the resignations were accepted.

Proceeding to fill the vacancies created thereby, Drs. J. Howell Way and W. J. Lumsden were nominated for the positions. Dr. Way insisted on his willingness to serve the Society in any capacity where he could promote the good of the profession, but urged that his name be withdrawn from consideration in this connection.

A vote being taken the nominees were elected unanimously. Later, acting on a suggestion made by him during the sitting of the House, Dr. Way's resignation was tendered to the President, and the choice of the Committee on Nominations for Member of the House of Delegates of the A. M. A. was approved by President Booth in appointing Dr. J. M. Templeton, of Cary, as Member for the year 1906.

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS TO THE HOUSE OF DELEGATES.

Your Committee believe the suggestions as to the importance of further legislative enactments to our Medical laws, making a minimum standard of all applicants to know sufficient English to speak and write correctly, are timely, and if carried out into legal requirements would relieve many applicants and our Board of Medical Examiners of an annual recurrent embarrassment and keep out of the medical ranks a number of defective members, who stand in danger of chronic "mental dyspepsia," that only a good literary education could have prevented. As suggested by the President and urged by the Board of Medical Examiners at Greensboro in 1905 North Carolina should not wait for outside States to take the initiative, but be a pioneer in this as she has in other medical legislation. We should recognize that it takes a broader and stronger mental grasp at present for the successful practice of medicine and surgery commensurate with their broader scope in the various sciences, and this ability must come from literary or school training.

We, therefore, recommend that an adjunct committee be appointed to co-operate with the regular committee for the purpose of enacting a law in this State requiring a minimum standard of a literary education before commencing the study of medicine and that our President, with three others of his selection, shall constitute this committee.

ALBERT ANDERSON,
J. M. PARROTT,
J. HOWELL WAY.

The President appointed to be associated with him and the legislative committee, in this work, Drs. Albert Anderson, of Wilson, J. Howell Way, of Waynesville, and James M. Parrott, of Kinston.

A committee was appointed by the President to escort Dr. S. D. Booth, the President-elect, to the General Meeting of the Society and introduce him.

The following appointments as Chairmen of Sections for the ensuing year was announced:

Anatomy and Surgery—Dr. L. A. Crowell, Lincolnton.

Materia Medica and Therapeutics—Dr. C. G. McManaway, Charlotte.

Practice of Medicine—Dr. J. B. H. Knight, Williamston.

Physiology and Chemistry—Dr. J. E. Nobles, Greenville.

Obstetrics—Dr. R. Duval Jones, New Bern.

Gynaecology—Dr. J. R. Browning, Littleton.

Medical Jurisprudence and State Medicine—Dr. Goode Cheatham, Brevard.

Pathology and Microscopy—Dr. E. W. Phifer, Morganton.

Railway Surgery—Dr. W. E. Headen, Morehead City.

Paediatrics—Dr. O. W. Holloway, North Side.

There being no further business, the House adjourned sine die.

Minutes of the North Carolina State Medical Society, Fifty-third Annual Session, 1906.

GENERAL MEETING.

The Fifty-third Annual Session of the North Carolina State Medical Society was called to order in the county court house at Charlotte, N. C., on the morning of May 29th, with Dr. R. L. Gibbon, Chairman of the Committee of Arrangements, presiding, who made the following address:

"It gives me a great deal of pleasure, as Chairman of the Committee of Arrangements, to call this meeting to order, and I will introduce to you Dr. J. R. Howerton, of the First Presbyterian Church of this city, who will lead us in prayer."

Prayer by Dr. Howerton.

Dr. Gibbon announced that, owing to the unavoidable absence of the mayor, the Hon. T. C. Guthrie, of the Charlotte bar, would deliver the address of welcome. Mr. Guthrie spoke in his usual happy style and made an able address on behalf of the city.

Dr. Wm. A. Graham, of Durham, who was on the program for the response to the address of welcome, was unavoidably absent, but Dr. Ben. K. Hays, of Oxford, delivered a most entertaining and enjoyable address, and was heartily applauded by those present.

Dr. Gibbon:

Gentlemen, I next introduce to you your President, Dr. E. C. Register, who will deliver his annual address. (Applause).

(Address by the President).

Dr. Albert Anderson made the following motion:

Mr. Chairman:

I move a committee be appointed to report on the recommendations of the President's address, and in making this motion I should like to add that in my opinion we have never had a more scholarly and timely address from any President in the history of the North Carolina Medical Society. Its notice of progress along scientific, legislative and organization lines is encouraging to those who have been engaged in the battle for the bringing to pass these things. While we have much to encourage us in his address, yet our President is faithful in pointing to our defects that we may eliminate them and build upon a surer foundation, and thereby reach higher standards.

Dr. Gibbon:

I want to make a few announcements, gentlemen. One is: I want to urge upon you to register as promptly as possible. When you register you will receive an envelope containing a ticket to the various clubs of the city, a ticket to the banquet and a ticket to the reception to be given at the Colonial Club tonight at ten o'clock.

The first paper is by Dr. P. L. Murphy, of Morganton,—"Colony Treatment of the Insane and other Defectives."

Dr. jos. Graham, of Charlotte, here made a motion that the registration be done in the hall on account of the confusion. The motion was carried.

Dr. Murphy's paper discussed by Drs. Peacock, Thompson, Robertson and Sykes.

"Some Points in Clinical Psychiatry of interest to the General Practitioner."—Dr. I. M. Taylor, of Morganton.

Discussed by Drs. Geo. Thomas, Albert Anderson, R. H. Lewis, Dr. Burroughs, Dr. Booth, Dr. S. M. Crowell.

"Incidental Observations on Hydrophobia."—Dr. Davis Furman, Greenville, S. C.

Discussed by Dr. Kent, and Dr. H. Q. Alexander.

"Acute Articular Rheumatism."—Dr. E. C. Boyette, Mt. Holly.

Discussed by Dr. Faison, Charlotte, N. C.

"The Treatment of Goitre."—Dr. Annie L. Alexander, Charlotte, N. C.

The President:

The House of Delegates will meet in the Hall opposite at 3:15. The general meeting will be here this afternoon at three o'clock.

The Society took a recess until three p. m.

TUESDAY AFTERNOON.

Convention re-assembled at three p. m. with Dr. L. B. McBrayer, First Vice-President, in the Chair.

"Therapeutic Nihilism and Pneumonia."—Dr. N. P. Coppedge, Margaretsville, N. C.

Discussed by Dr. S. D. Booth.

"The Treatment of Typhoid Fever."—Dr. J. M. Matthews, Mount Pleasant, N. C.

"Malaria as seen in Gaston county."—Dr. T. C. Quickel, Stanley Creek, N. C.

Discussed by Drs. Wharton, Marsh, Rodman, and Matthews.

Dr. Parrott:

Here presents to the President the report of the Board of Medical Examiners and resolution attached.

Chairman:

Refers same to House of Delegates without action.

"Broncho-Pneumonia Complicating Measles."—Dr. J. G. Busby, Spencer, N. C.

"The Relations Existing Between the Upper Air Passages and the Lungs."—Dr. R. V. Brawley, Salisbury, N. C.

Discussed by Dr. Marsh.

A recess was taken by the Society until 8:15 p. m.

NOTE:—It is ordered that by general consent, those having papers to read, and who are not present shall have them read by title.

TUESDAY EVENING, MAY 29TH.

Convention called to order at 8:15 p. m. with the President presiding.

"Tuberculosis."—Dr. K. M. Ferguson, Southern Pines.

NOTE:—It was decided on account of the general symposium of tuberculosis, that all papers of like nature, upon the same subject be discussed together.

"Skin Tuberculosis and other Dermatoses," (Illustrated)—Dr. Paul Paquin, Asheville, N. C.

"Tuberculosis, Prevention and Cure."—Dr. C. A. Julian, Thomasville, N. C.

"Unjustifiable Negligence in the Diagnosis of Pulmonary Tuberculosis."—Dr. W. M. Jones, High Point, N. C.

"The Prognosis of Pulmonary Tuberculosis."—Dr. James Sawyer, Asheville, N. C.

The Vice-President here tenders a motion that the Convention adjourn until 9 a. m. the following morning (Wednesday) in order that the Convention might attend the reception at the Colonial Club, which reception was tendered by the ladies of the City of Charlotte, N. C.

The motion was unanimously carried and the meeting adjourned until 9 o'clock Wednesday morning.

WEDNESDAY MORNING, MAY 30TH.

The Convention met at 9 o'clock with the President in the Chair. The program of Tuesday evening, "The Symposium on Tuberculosis," which had not been finished was taken up and completed, Dr. Arthur R. Guerard, of Flat Rock, N. C., reading first paper, "Treatment of Tuberculosis."

"The Rational Treatment of Tuberculosis."—Dr. W. R. Kirk, Hendersonville, N. C.

"The Physician and his Relation to Tuberculosis as a Social Problem."—Dr. T. A. Mann, Durham, N. C.

"The use of Cotton Seed Oil in treatment of Pulmonary Tuberculosis."—Dr. C. D. Thompson, Lowesville, N. C.

Discussed by Dr. W. S. Anderson, of Wilson, N. C.

"The Infection Dangers in Pulmonary Tuberculosis," by Dr. J. Howell Way, of Waynesville, N. C., read by title and referred.

The program of the morning was then begun, Dr. J. H. Marsh, of Fayetteville, N. C., reading the first paper, "Are we doing our duty in preventing the spread of Venereal Disease?"

"The Results of Gonorrhoeal Infection in Females."—Dr. H. B. Weaver, of Asheville, N. C.

Dr. Weaver's and Dr. Marsh's papers were discussed together.

Discussion: Drs. Templeton, Burroughs, Coppedge.

"The Imperfect Development of Certain Organs a Factor in the Special Diseases of Women."—Dr. B. S. Moore, of Charlotte, N. C.

Discussion: Drs. Weaver, Royster.

"Extra Uterine Pregnancy, Fourteen Successful Operations.—Dr. J. W. Long, Greensboro, N. C.

Discussed by Dr. Hunner, Dr. Royster, Dr. Moore, of Wilson, N. C.

"Post Operative Leucorrhoea."—Dr. C. M. Strong, of Charlotte.

Discussed by Dr. Hunner.

The Convention and the State Board of Health met in conjoint session at 12 o'clock, noon, with Dr. Geo. Thomas, President, of Wilmington, N. C., presiding.

The organization of a State Society for the prevention of tuberculosis was discussed.

Dr. Hayes here read the constitution. Membership cards were then circulated.

Dr. R. H. Lewis, Secretary of the State Board of Health, here submitted his report.

The discussion of various features of the Secretary's report was here participated in by Drs. Julian, Templeton, Mason, Ferguson, Weaver, Faison, Anderson, Mann, Hayes, Kirk.

The Secretary's report was accepted.

The President here ordered that Dr. Stevens would take what measures he saw fit to expedite the organization of the Society for the Prevention of Tuberculosis, and extended a cordial welcome to all helpful influences on sanitary lines.

The conjoint session then adjourned.

The convention adjourned until 3 p. m.

WEDNESDAY AFTERNOON.

Society re-assembled at three o'clock with Dr. McBrayer, Vice-President, presiding.

Program of the morning resumed. Dr. M. A. Royall, of Yadkinville, read the first paper, "Curettment of the Uterus."

"Vesical Calculi in the Female." Dr. A. M. Caveness, of Wakefield.

Discussion: Dr. L. E. Holmes, Dr. Moncure.

"Serum Therapy."—Dr. T. G. Hamrick, Caroleen.

Discussion: Dr. M. E. Robinson, Goldsboro; Faison, A. S. Rose, Coppedge.

Dr. Poole here read the report of the Obituary Committee.

Discussed by Dr. Sykes, Dr. Coppedge, Mason.

"Immediate and Remote Influences of County Medical Organizations."—Dr. J. C. Grady, of Kenly.

Afternoon program taken up at the conclusion of the morning program.

"Arthritis Deformans."—Dr. L. E. Holmes, Biltmore, N. C.

"A Plea for More Frequent Autopsies in Private Practice."—Dr. J. P. Munroe, Davidson, N. C.

Discussed by Dr. Crowell.

"Where the Tides Meet."—Dr. H. S. Lott, Winston, N. C.

Discussed by Dr. McBrayer.

The Society adjourned until 8:15 p. m.

WEDNESDAY EVENING, MAY 30TH.

Convention called to order at 8:15 p. m. by the President.

Dr. James M. Parrott, of Kinston, N. C.,

delivered the annual oration.

Dr. Thos. S. McMullan, of Hertford, N. C., delivered the annual essay.

Regular program here taken up, Dr. Royster, of Raleigh, N. C., reading first paper, "Washing the Hands."

"The end results—mental, physical, psychical after oblation of certain structures and organs of the human body."—Dr. J. Ernest Stokes, of Salisbury, N. C.

Discussed by Dr. Geo. W. Long.

The Convention here adjourned until nine o'clock Thursday morning to attend the banquet given by the Mecklenburg Medical Society.

Thursday morning the Society re-assembled with the President in the Chair.

The program of Wednesday was continued.

Dr. Henry F. Long, of Statesville, N. C., read the first paper, "Gall Stones."

Discussed by Drs. Templeton, Faison, Carr of Johns Hopkins, Hargrave, Mason.

Dr. Way: Mr. President, I desire to introduce to this Society Drs. Davis Furman, of Greenville, S. C., and C. B. Earle, of Greenville, S. C., and move that we extend to them the privileges of the floor and debate. Motion carried.

"Present Status of the Treatment of the Cancer."—Dr. L. B. McBrayer, of Asheville, N. C.

Discussed by Drs. Whittington, Swann, Annie L. Alexander, Brooks, Carr, McBrayer and Witherbee.

"X-Ray Treatment as a Preventive of Recurrence following Extirpation of Malignant Growths."—Dr. W. D. Witherbee, of Charlotte, N. C.

NOTE:—This paper was discussed in connection with the above paper of Dr. McBrayer.

"Trephining with Modern Instruments."—Dr. H. M. Wilder, Charlotte, N. C.

"Chorea Graviadrum."—Dr. Templeton, of Carey, N. C.

"Carcinoma of Penis."—Dr. Chas. M. Green, Wilmington.

"Placenta Praevia."—Dr. C. H. C. Mills, Charlotte.

"When the Baby Comes."—Dr. Cyrus Thompson, Jacksonville. Read by Dr. Laughinghouse.

Convention took a recess until 3 o'clock.

THURSDAY AFTERNOON, MAY 31.

Convention re-assembled at three o'clock, with the Vice-President in the chair.

The members of the State Nurses Association, in convention in the city, attended the convention in a body at this afternoon session, and added much to the interest of the occasion. Their presence was commented on by the Vice-President in happy style, and he gave them a cordial welcome, on behalf of the Society.

"Puerperal Eclampsia."—Dr. M. R. Adams, of Statesville.

"Eclampsia."—Dr. J. W. McGhee, Reidsville.

"Notes on Puerperal Eclampsia."—Dr. Raymond Pollock, Dover.

Dr. Way, the Secretary, presented a report from the House of Delegates of the officers elected for the ensuing year.

Dr. Ben. K. Hays and Dr. Geo. W. Long here introduced the President-elect, Dr. S. D. Booth.

The Vice-President, in a brief, happy speech, introduced to the members of the Society the President-elect for the coming year—Dr. S. D. Booth, of Oxford. Dr. Booth responded in similar vein.

Dr. McMullan asked that a resolution of thanks of the North Carolina Medical Society be returned to the good people of Charlotte for their generous, beautiful hospitality during the meeting. The motion was unanimously carried, amid much applause.

The President then read the names of the Chairmen of the various sections for the ensuing year.

Motion made and carried by Dr. Mason that discussion of the papers be dispensed with.

"Forceps in Labor."—Dr. L. D. Wharton, Smithfield.

"Clinical Reports, two Caesarian Sections, one Umbilical Fistula."—Dr. W. H. Dixon, Edward, N. C.

"Imperforate Hymen at Full Term."—Dr. H. S. Lott, of Winston.

"Marasmus."—Dr. E. H. Brooks, Reidsville, N, C.

"State Medicine as now enforced, and how it should be."—Dr. W. F. Hargrove, Kinston.

Vice-President adjourned the Convention, sine die, to meet next year at Morehead City.

Delegates to the International Congress on Tuberculosis to be held in New York, Nov. 14, 15, 16, 1906, appointed by President Booth:

R. H. Lewis, Raleigh, N. C.
Ben. K. Hays, Oxford.
Chas. J. OH. Laughinghouse, Greenville.
A. W. Knox, Raleigh.
J. Howell Way, Waynesville.
Jas. A. Burroughs, Asheville.
J. Roy Williams, Greensboro.
Chas. A. Julian; Thomasville.
W. M. Jones, High Point.
A. A. Kent, Lenoir.

COUNCIL ON MEDICAL EDUCATION OF AMERICAN MEDICAL ASSOCIATION IN NORTH CAROLINA.

Drs. Thos. S. McMullan, Hertford, N. C.' T. L. Booth, Oxford, N. C., Chas. Roberson, Greensboro, N. C.

Editorial Notes

THE PEOPLE VS. THE PACKERS.

It will be, as Lowell says, a sorry day for this Republic when there are no protestants to protest, and when the 80,000,000 of American people become awake to conditions that have (according to the governmental report of Messrs. Neill and Reynolds, made after a two weeks' inspection,) existed in the Chicago stock yards, the court of Public Opinion will give a verdict in favor of decency. The people are not infallible or always fair, but with them lies the final appeal. "Given" says Upton Sinclair, "an enlightened public opinion, everything else will come." That the maker must, in the long run, keep faith with the buyer, is the underlying principle of barter and commerce.

As to the detail of the report itself, it is as revolting as Mr. Roosevelt describes it; in this case, at least, the muck-raker seems to be a needed citizen. There is a conglomeration of filth, human and animal, in the canning departments of the Chicago meat plants that seems incredible. Conditions are unsanitary, floors rotting and slimy, ventilation wretched, the air germ-laden, and the conveniences for the workmen are vile. A paragraph from the Neill-Reynolds reports, says:

"The neglect on the part of their employers to recognize or provide for the requirements of cleanliness and decency of the employees must have an influence that cannot be exaggerated in lowering the morals and discouraging cleanliness on the part of the workers employed in the packing-houses. The whole situation as we saw it in these huge establishments tends necessarily and inevitably to the moral degradation of thousands of workers, who are forced to spend their working hours under conditions that are entirely unnecessary and unpardonable, and which are a constant menace not only to their own health, but to the health of those who use the food products prepared by them."

In reply to the indictments, the eight largest packing houses have issued a joint statement, but they do not make specific denial of the charges; in the interim, they have been cleaning up their places, and certain reforms that will be helpful have been set in motion. A pertinent question before the legislators is whether or not the government should pay for the drastic inspection that will be needed in the future; those who call for this seem to overlook the responsibility that lies on any individual or any corporation seeking public patronage to make its wares safe for public use. A grewsome exhibit of rotten and treated beef was provided for the recent meeting of the American Medical Association, which resulted in a resolution supporting the President in his inspection crusade.

It is stated that the demand for potted products has fallen off to the extent of $20,000,000, and that 60% of the workers are idle; certainly the public appetite for canned meat is not normal and those factories that do follow after cleanliness have suffered in consequence of the Augean disclosures at Chicago. A little more discrimination—the calling of guilty names, for instance—would have been more just to manufacturers as a class. Reports from Europe indicate a determination to exercise a rigid oversight of all food supplies coming from America.

THE MEDICAL PROFESSION AND THE ISSUES WHICH CONFRONT IT.

At the opening of the fifty-seventh annual meeting of the American Medical Association, at Boston, June 5th-8th, President Mayo, of Rochester, Minn., made a most notable address on the above broad subject.

He referred, as introducing his theme, to the organization which has been attained, with a note of warning that we are as yet but on the threshold of a perfected organization, that can appeal to the country as sanitative authority, an "organization that will encourage right thinking and good usage among ourselves, help to secure needed medical reforms, compel redress of grievances and promote and encourage the highest interests of its individual members." To accomplish this, self must be merged into service, looking to the greatest good to the greatest number. We have been overwhelmed by the new truths that are daily opening to our visions, and it is impossible to expect the lay mind to keep pace. There is need for infinite tact and infinite patience in educating the public in the grave importance of measures to prevent and control tuberculosis, yellow and typhoid fever, malaria, cancer, smallpox, etc.

Appreciative reference was made to the crusade against patent nostrums by the Ladies' Home Journal and Colliers' Weekly, and to the work done by the Public Health and Marine Hospital service.

In speaking of the life-study the profession involves, and the need of careful and broad preparation, he stated:

"We can not rid ourselves of dogmas and pathys until we can secure a universal primary law as to the minimum amount of knowledge on fundamental branches. To accomplish this the American Medical Association must co-operate with and encourage medical colleges to do better work. The

profession owes it to itself to investigate in some manner what the schools are actually doing and to make it known whether or not they fulfill their obligations to the student. No well-conducted college could object to such reasonable supervision."

The address was closed with an appeal for the individual following out of the aims and ideals of those who have blazed the way, and for united effort towards furthering the great movements of the day.

ENGLISH EMPIRICISM.

When it comes to the question of nostrums and quacks, it may help us to bear with more professional equanimity the troubles of our own land, when we realize that America has not cornered the crank market. It would seem to be too late, in the progress of the suns, for the anti-vaccinationists to be pandered to by a body like the British House of Commons; and yet so exalted a personage as the Minister of Education has stated that he would insert in the regulations "a provision to exempt intending teachers who objected to be vaccinated, leaving local authorities to decide in each case whether they would employ such a teacher." When asked if such a gap as he was letting down was allowed in other civilized countries he made the undignified, evasive reply, that he was not a judge of civilization, he was Minister of Education!

THE FREE ALCOHOL BILL.

The free alcohol bill, reported to the Senate on May 23, was passed the next day, to become effective January 1st, 1907. This will give the internal revenue department time to adjust itself, and the manufacturers of wood alcohol a chance to dispose of surplus stock. The bill provides that after it becomes a law domestic alcohol of such degree of proof as may be prescribed by the commissioner of internal revenue may be withdrawn from bond without payment of internal revenue tax, for use in the arts and industries and for fuel, light, and power, provided said alcohol shall have been mixed in the presence and under the direction of an authorized Government officer, with denaturizing material, which destroys its character as a beverage and renders it unfit for medicinal purposes."

DEFINITION OF PRACTICE OF MEDICINE

The New York Court of Record's decision as to the meaning of Practice of Medicine is worthy of publication: "The practice of medicine is the exercise or performance of any act, by or through the use of anything or matter, or by things done, given, or applied, whether with or without the use of drugs or medicine, and whether with or without fee therefor, by a person holding himself or herself out as able to cure disease, with a view to relieve, heal, or cure, and having for its object the prevention, healing, remedying, cure, or alleviation of disease."

TUBERCULOSIS IN GERMANY.

The National Tuberculosis Congress, in recent session in Berlin, has published a gratifying statement that shows a decrease of 38 per cent. in the number of deaths from tuberculosis since 1875. Of the patients treated 34 per cent. have been restored to health. In 1905, 15,161 persons were examined at Berlin; 8,200 apartments were so arranged that infected cases could be isolated.

The insurance companies of that progressive country have made an outlay of £1,900,000 within four years, for the purpose of staying the disease; this included the establishment of thirty-six sanatoria, with 2652 beds, for women and children; during 1905, 26,621 persons were treated at these institutions.

The friends of Drs. E. R. Russell and A. J. Crowell, of Charlotte, N. C., will be pleased to know that they are now in Europe, where they are studying in their respective, special lines.

STATE MEDICAL SOCIETY OF NORTH CAROLINA.

We are indebted to Dr. J. Howell Way, of Waynesville, N. C., Secretary of the Society, for a handsomely bound copy of "Transactions of Fifty-second Annual Meeting of the Medical Society of the State of North Carolina." The Society of North Carolina is one of the few State Societies which adheres to the plan of an annual volume of transactions which can be preserved in good form for reference.

This volume indicates that the Society of North Carolina is doing the work which falls to a State Society in a very able manner, indeed, and that the Society is in a most flourishing condition. We understand that the membership of this Society has of late been very largely increased, and that this condition is largely due to the untiring efforts of its secretary, Dr. Way. It is difficult to estimate the value of a competent secretary to a Society, and when one is found who is all right his services should be retained as long as he can afford to make the sacrifice of time which is always necessary to make the work of the office a success.

The above appeared as an editorial in a recent issue of The International Journal of Surgery, of New York. Dr. McDonald's last paragraph indicates that he knows that every bright, successful physician cannot make a good Secretary of a Medical Society.

THE BOSTON MEETING.

The fifty-seventh annual meeting of the American Medical Association, after an interval of forty-one years, met in Boston, June 5th. Nothing was spared by the city in the way of money or human effort, to make the meeting a delightful one. The handsome group of marble buildings, which the Harvard Medical School will dedicate next fall, was used with satisfactory effect for both social and professional ends, and the many hospitals and medical schools furnished opportunity for clinics, the study of individual cases, etc.

The scientific work of the meeting was above the average; papers were presented by experts to the various sections, to hear which fully repaid long journeyings; in fact the number of these papers has become so great as to make it impossible for them to be assimilated and calmly discussed. How to curtail the continually growing program and at the same time utilize the thought of the organization is one of the problems that lie before it.

Whispers, in official circles, of a proposed change in the administrative affairs of the Association gave additional interest to this meeting. The feeling of dissatisfaction with the work of the secretary-editor, Dr. George H. Simmons, has become so general that a change would have doubtless resulted had the question come before the body, instead of the House of Delegates, the members of which are appointed each year by the State Societies, and not directly by the Association. Dr. Walker, of Detroit, presented a resolution, asking for an investigating committee; introducing the same, he stated that the majority of the members do not understand the workings of the Association and that an investigation would clear the officers of suspicion. The fact that this resolution was tabled will have a far from quieting effect; it will feed the feeling that things have been done that will not bear the light, and only postpones what must come before confidence will be restored. The Charlotte Medical Journal feels, and feels strongly, that Dr. Simmons is not the man for the place he occupies as editor of the official organ of the Association, which goes, each week, to 43,000 doctors and should be the leading professional magazine in the world.

We give, in another column, a resume of the address of the President, Dr. William J. Mayo, of Rochester, Minnesota, who, in connection with his brother, has built up a hospital to which eminent men in the profession go, both for treatment and observation.

The next meeting will be held at Atlantic City, which as a convention city is coming to be a rival to Washington and where the tired worker from the interior will find, next June, a tonic in the sea air and accommodations that will be ample for all needs.

THE AMERICAN MEDICAL EDITORS' ASSOCIATION.

In connection with the meeting of the American Medical Association the above named body met in Boston, June 4th, in its thirty-eighth annual meeting, with Dr. Henry Waldo Coe, of Portland, Oregon, in the chair.

Interesting papers were read by Drs. James E. Pilcher, William J. Robinson, T. D. Brothers, John Punton, Charles Wood Fassett, W. C. Abbott and Frank P. Foster.

Among the questions considered, that deal with practical journalism, and which are constantly arising in all medical editorial offices, was the matter of advertising proprietary medicines, and the advisability of printing, simultaneously, the same article in a number of different journals. Dr. Foster made a strong plea for united action to prevent the latter, and Dr. Abbott, of Chicago, and Dr. K. W. Millican, of St. Louis, dealt with the former question, insisting on fairness to the worthy advertiser, and exposure, so far as in us lies, to the frauds.

The following officers were elected: President, Dr. James Evelyn Pilcher, of Carlisle, Pa.; First Vice-President, Dr. Frank P. Foster, of New York; Second Vice-President, Dr. Charles F. Taylor, of Philadelphia; Secretary and Treasurer, Dr. Joseph MacDonald, Jr., of New York.

The busy physician will find a real comfort in the ledger manufactured by M. S. & D. A. Byck, of Savannah, Ga., advertised in this issue of the Journal. He can make certain memoranda which are very valuable to him for future reference; for instance: sometimes in the successful treating of a case—a physician desires to record any particular method of treatment—so that at any future time having a similar case to attend might wish to treat in like manner, he can easily refer to the party's page in Ledger and find all the requisite memoranda at once. Whereas, as a general thing the physician not having such a Ledger, quite often makes his notes or memoranda—places same on various files, and in time the accumulation of papers on said files, &c., becomes so much that the doctor cannot find it when wanted—and often one particular note when wanted, to refer to, is worth to the doctor the price of the entire book itself. This space on every page.

Book Notices.

Lady Baltimore. By Owen Wister. With illustrations by Vernon Howe Bailey and Lester Ralph. The Macmillan Co., 66 Fifth Avenue, New York. Price $1.50.

Owen Wister needs no introduction to our readers, for the simple statement, Author of The Virginian, is sufficient explanation.

He has entered fully into the traditions of Kingsport, which is Charleston, thinly veiled, where he went to find a link in the past, but found, instead, a new link to the charming present. The story is unique and quaint, and the author's epigrammatic vein makes many happy side-shots at some of the absurdities of life. We are indebted to him for two expressions that express something, and will live: "The yellow rich" and "The Replacers." Their satellites are drawn with a master hand.

Little by little the details of the plot are put together. An inexperienced young fellow, fascinated by a woman, with little but her beauty to attract, awakens to find that there is nothing save his sense of honor binding him in the promise of marriage; then he finds the girl who has what his fiancee lacked, and the inevitable takes place. A tame little story? There is a delicate flavor, and a delightful aroma, there is old-time picturesqueness, there is the secret of the old order, there is a keen sense of personal honor and the aristocracy of blood, there is loyalty in which money does not count, there is simplicity, there is a note of patriotism, there is true friendship and quiet fun—all making a whimsical and sympathetic and wholesome story.

As to the title of the book you must read it yourself to find out what it means.

The Holy Grail. By James A. B. Scherer, LL. D. J. B. Lippincott Company. Philadelphia and London. $1.25 net.

Dr. Scherer is the capable President of Newberry College in South Carolina, and is well-known among thousands of readers by his popular books on Japan—"Japan To-Day" and "Young Japan"—and by his unique story of the Church, entitled "Four Princes." He is equally well known as a speaker, having been heard on many platforms, especially in the South. The present volume is offered in respone to a wide-spread demand for the preservation of a selection of his literary addresses and essays in permanent form.

He is a graceful, appreciative writer, and a student of literature and of life. The contents of this interesting volume are:

The Holy Grail—A Tribute and an Appeal.

Henry Timrod—A Carolina Poet.

Sidney Lanier—Minstrel and Man.

The Crusaders—A Study of the Transformed Cross.

Liberty and Law—The Foundations of Patriotism.

The Century in Literature—A Review and a Forecast.

The book ought to be in every Southern library.

The Mecklenburg Declaration of Independence, May 20, 1775, and Lives of its Signers. By George W. Graham, M. D. Cloth, 205 pages. Price, $1.50. The Neale Publishing Company, Washington, D. C.

This book, in a more condensed form, was read before the Scotch-Irish Society of America, at its meeting in Lexington, Virginia, in 1895, and is included in the transactions of that Association. As a demand for information in regard to long mooted questions was evidenced, the original essay was enlarged and published in book form.

The 20th of May, 1906, was so elaborately and so worthily celebrated in the city of Charlotte, where the Mecklenburg Declaration was made and which is the home of Dr. Graham, that a new impetus has been given to perpetuating the date on which it is contended that the several militia companies of the county met and resolved to be free from the mother-country.

We have not room here to go into the merits of the chain of evidence presented, but the author has made an interesting contribution to the history of the period, and there is no more interesting period in our Nation-history, than that of the decade in which we came into being.

Some Neglected History of North Carolina. by William Edward Fitch, M. D., including the Battle of Alamance, the First Battle of the American Revolution, 8vo. pp. 308; illustrated; price, $2. Publishers: The Neale Publishing Company, Fifth Avenue and Twenty-third Street, New York.

Dedicated
to
Hon. Joseph M. Morehead

In acknowledgement of his consummate wisdom as a statesman, his valor as a soldier, his incorruptible integrity, and his researches in the history and causes of the Revolution of the Regulators, unsurpassed by any writer; and

To
General Julian Shakespeare Carr

Because of his love for the 'Old North State,' his veneration for her heroes who bled at Alamance, his success as a model man, his philanthrophy and loftiness of

character."

Dr. Fitch is a Georgia physician, who has given much careful study to the early history of North Carolina, and this contribution to the limited literature of that period is an interesting and valuable one.

Of course the "Regulators" are the star actors, and Dr. Fitch contends bravely for giving them and the battle of Alamance the place they deserve in the Revolution series. Of them he writes:

"The war of the Regulators was a revolution and the beginning of, and the Revolutionary War the ending of, one and the same war against oppression by the British government."

There are biographical sketches of Governors Arthur Dobb and William Tryon, Colonels Edmund Fanning and Hugh Waddell, and Judges Henderson, Moore and Howard; the Regulator leaders, Col. Thomas Person, James Hunter, James Pugh, Harmon Husband, Dr. David Caldwell and others.

The loyal spirit, and its real merit, will hold your attention to the end, while the mechanical make-up of the book shows the estimate that the publishers place upon it. The student of North Carolina history—and may his tribe increase—can not afford to over-look this book, which was published early in 1905.

The Diagnostics of Internal Medicine. A Clinical Treatise upon the Recognized Principles of Medical Diagnosis Prepared for the use of Students and Practitioners of Medicine. By Glentworth Reeve Butler, A. M., M. D., Chief of the Second Medical Division, Methodist Episcopal Hospital; Attending Physician to the Brooklyn Hospital; Consulting Physician to the Bushwick Central Hospital; formerly Associate Physician, Departments of Diseases of the Chest and Diseases of Children, St. Mary's Hospital, Brooklyn, N. Y.; Fellow of the New York Academy of Medicine; Member of the Medical Society of the County of Kings, etc. 8vo. 1061 pages. 224 Illustrations. Prices: Cloth, $6.00; sheep, $7.00. D. Appleton and Company, 72 Fifth Avenue, New York.

The Diagnostics of Internal Medicine is the work of a practical clinician, written in a clear, fresh, and fascinating style that will be appreciated by the student and practitioner of medicine who wishes to become familiar with the foundations of the art of medicine. Dr. Butler has covered a wider range than is usual in works of this class; and this book is probably without a rival in its chosen field of Medical Diagnosis.

Part I deals with the evidences of Disease (in 44 sections), comprising a brief consideration of the clinical anatomy and physiology of certain organs and systems; a description of the approved methods of examination; a careful consideration of the many signs and symptoms encountered in the practice of internal medicine; and a statement of the diagnostic significance of each sign and symptom.

Part II, Diagnosis, Direct and Differential (11 sections), comprises succinct descriptions of recognized diseases and their symptoms, with special reference to the diagnosis, direct and differential, of each disease.

A Manual for the Eclectic Treatment of Disease. Finley Ellingwood, M. D., Professor of Materia Medica and Therapeutics, Bennett Medical College, Chicago. Editor Chicago Medical Times. Two Volumes. Volume I. Chicago Medical Times Publishing Company, 100 State Street, Chicago, Ill.

The author, in writing this work on the treatment of disease, has embodied the principles which he presented in his former works on Materia Medica and Therapeutics. It is a companion volume to the former works, and can best be used in connection with those, where will be found, in many instances, an exhaustive consideration of the remedies suggested. In the arrangement of the different topics a strictly scientific grouping has been sacrificed in order to make a more practical working arrangement.

As the successful treatment of disease is the objective point of every student in medicine, this book will doubtless have a wide sale among physicians who are not satisfied with their attainments in this direction, who are continually searching for knowledge of the most direct action of drugs, as applied to specific conditions of disease.

The Dawn of a Tomorrow. By Frances Hodgson Burnett. Charles Scribner's Sons, N. Y. $1.00.

The present tense of this book is a story of a British Baronet of great power and accumulated wealth, who became satiated with life, and disguising himself in old, cheap clothing, he went down into the slums to die by his own hand; in the fog he came in touch with a slum-child, from Apple Blossom Court—a born optimist; he went home with her to find so much wretchedness that he and his money could help that he was won from his wish to die, and life took on a new meaning; that is the tomorrow of the title.

Mrs. Burnett writes with deep spiritual feeling and the story is a new testimony to the fact that the world-weary reaching out

after God, may find him in service. The child-like, responsive faith of the Court is shown in the prayer of the simple woman; "Speak Lord, for thy servant 'eareth," and her satisfied statement: "The answer will be gave me soon."

The Phantom of the Poles. William Reed's arguments to prove that the earth is hollow. Walter S. Rockey Company, Publishers, 259 Fifth Avenue, New York. Illustrated.

The narrative is founded upon the theory that the earth is hollow, with openings at the northern and southern extremities.

The author declares that "when Lieutenant Greeley was beholding the mock sun at 120 deg. L., he was looking into our sister-world; and when Nansen saw the square sun lined with horizontal bars he was gazing on what may be the future home of his daughter, then but two years old.

The old complaint of the unsatisfying explanation of books is also expressed by the author. "School-books teach that the earth is round, and flattened at the poles," but do not tell us why. He opens our eyes with this belief: that the earth is hollow and that the opening causes the appearance of flatness. Again, "when Nansen was going into the interior of the earth, he was under the impression that he was going north." Of course, as the author says, "travelers must go north when they go into the interior, until they reach the farthest point, but long before they do, they will have sunk a long way into the earth."

The Mystery of The Lost Dauphin. By Emilia Pardo Bazan. Translated from the Spanish by Annabel Hord Seeger. Pp. 337. New York: Funk & Wagnalls. Price, $1.50.

The Mystery of the lost Dauphin, Louis XVII, of France, takes its place along with the Man in the Iron Mask, and the disappearance of the Little Princes' in mysteriousness and pitifulness. However, this version of the story might have happened, and it makes, as Horace Greely said, mighty interesting reading.

The author founds the tale on the assumption that Maundorf, the Prussian watchmaker, was the dauphin; Maundorf tells the story of his capture, imprisonments, escapes, and subsequent trials and disappointments. His appeal to Maria Therese would touch any heart. The plot of the story is grouped about this narrative of Maundorf's, as a great deal of time and money was spent to discover the Mss. in order that it might be destroyed.

Madame Bazan is among the great women novelists of her time; her work is almost unknown in America, but this translation will do much to introduce her to our people.

Balzac; A Critical Story. By Hippolyte Adolphe Taine, with an Appreciation of Taine by the translator, Lorenzo O'Rourke. The Funk & Wagnalls Company, New York City. Price, $1.50.

Emerson says there is no history, only biography, so a biographical study of one of the greatest of novelists, by one of the greatest literary critics can hardly fail to find an appreciative audience. Balzac and Taine are household words among English speaking peoples, but to comprehend them it is needful to be acquainted with them as men, in addition to knowing them through their writings. Balzac has been called the greatest storehouse of documents on human nature that we possess.

The Life of William Pepper, M. D., LL. D. Francis Newton Thorpe. The J. B. Lippincott Company, Philadelphia, Penna. $3.75, postpaid.

This book is the life-story of a man of mark, who has not only influenced thousands of students who sat at his feet, but his services to Philadelphia, in Art, Science and Industry will endear his name to posterity. It is a story of the philanthropic growth of the city.

Future generations may appreciate even more than the present, the work of William Pepper. Looking at the work he did and the plans he wrought, we see that he strove to establish in his own city a system of schools and museums that will make his name fragrant for all time to come.

He was, first of all, a healer of disease; his power of diagnosis was inborn. When but thirty-three years old, he was appointed Medical Director of the Philadelphia Centennial, and he received personal recognition from the English Government for his care of its Commission, and had been made Knight Commander of the order of St. Olaf.

In 1885 he finished his five-volume work, The American System of Medicine, which has become popularly known as the Pepper System; during this year he was president of the American Climatological Association, and was the father of the Association of American Physicians.

During General Sheridan's last illness Dr. Pepper spent the nights in Washington by his bedside, and his days in Philadelphia, where his duties as Provost of the University of Pennsylvania, or his profession were not neglected.

At fifty-five years he drooped under his burden. No man could carry so much and live. As an enduring monument, he left The University Hospital, The Commercial

Museum, The Philadelphia Free Library, and the University of Pennsylvania reorganized. The educational ideals of the city had been changed. To do these things $10,000,000 has been secured through his solicitation; of the amount he gave nearly a half-million out of his own pocket. It is an inspiring story, and the face of the man is an inspiring face. Every physician should have the book in his library.

Polk's Medical Register and Directory of North America, 1906. Ninth revised edition has been received.

This volume contains 3166 pages of concentrated information that is useful to the profession. The Directory proper is arranged by location, giving postoffice address, in alphabetic order, first, and then the individual names, so arranged.

The publishers are R. L. Polk & Company, Detroit, Michigan.

Modern Physio-Therapy. A System of Drugless Therapeutic Methods, Including a Chapter on X-ray Diagnosis. By Otto Juettner, A. M., Sc. M., M. D., M. E., Ph. D., Professor of Practice at the Cincinnati Post Graduate School of Physiological Therapeutics, Associate Editor Journal of Physical Therapy and International Journal of Therapy, Member Roentgen Society, London, Eng., etc., etc. Harvey Publishing Co., Cincinnati, Ohio. Price, cloth, $6.00 net.

This book is divided into two sections, Part I treating of the Principle of Physiological Therapeutics, and Part II is a Therapeutic Index, in which the writer has arranged diseases and their treatment in an alphabetic manner.

The work has grown out of a large experience, and its magnitude necessarily cramps one in attempting to present it in one volume. The chapter on X-ray diagnosis is an especially valuable one, and it will prove of great interest to those who wish to investigate this art.

Many physicians will doubtless take issue with him in that he does not find the uses of electricity and the X-ray to be on the same plane of scientific exactness as phototheraphy, mechanotherapy and hydrotherapy. Theoretically, the book covers the entire field of clinical medicine, and a thorough study of the first four chapters will be extremely helpful to any student of Physiotherapy.

We are glad to note that there has been a great demand for this publication and it has brought wide recognition to its talented author. A Spanish edition is being prepared by a Professor at the University of Mexico.

The Medical Diseases of Infancy and Childhood, with points on the Anatomy, Physiology and Hygiene peculiar to the Developing Period. By Alfred Cleveland Cotten, A. M., M. D., Professor of Pediatrics Rush Medical College, University of Chicago; Attending Physician for Diseases of Children Presbyterian Hospital; Consultant to the Central Fire Dispensary, etc., etc. Formerly physician in charge of the Chicago Isolation Hospital and of the Infectious Disease Wards of the County Hospital. Member of the XIII International Medical Congress, Moscow. Honorary Member of the Societe d'Hygiene, Paris, etc. Philadelphia and London. J. B. Lippincott Company. 1906.

The Journal has already referred to this most excellent and reliable text-book. It is what it claims to be—a treatise on Pediatrics, growing out of extensive preparation, in which the author has devoted large space to the subjects connected with the developing period. The matter of infant feeding is broadly treated, as is also the action of medicines and hygiene.

The type is good and there is a sense of comfort surrounding the book that makes its very appearance a joy to the book-lover. It is aptly and extensively illustrated, and the book will receive a warm welcome from the profession. It is one of a new medical series that is being brought out by the J. B. Lippincott Company, a firm that gives to the internal as well as to the mechanical make-up of its books the most scrupulous over-sight.

Abstracts of the Leading Articles of the Month.

PROLAPSE OF THE RECTUM--PATHOGENESIS AND TREATMENT.—Hiimann (Centralblatt fur Chirurgie) says that the rectum is supported by the muscles of the perineum, especially the levator and sphincter ani, and not by internal attachments. Treatment should, therefore, be directed to the strengthening and support of the perineal floor, and he proposes the following operation to effect this purpose:

An H-shaped incision is made in the perineum, embracing the rectum in the anterior part of the H and the tip of the coccyx in the posterior. The rectum is separated from the structures behind it to a depth of two inches, and the cavity thus produced is elongated anteroposteriorly by drawing the rectum and anus forward and closed from the bottom, so as to make a straight wound running anteroposteriorly from the coccyx to the rectum. In this way the transverse muscles supporting the rectal floor are short-

ened without any sacrifice of tissue. Rest in bed for three weeks after operation is advisable.

The method has been used in several cases with good results.

A NEW SIGN OF ORGANIC PARALYSIS OF THE LOWER EXTREMITY.—Grassett and Gaussel (Univ. de Montpellier) mention a new sign of organic paralysis of the lower extremity, consisting in the possibility of raising the paralyzed limb separately, with impossibility of raising both lower extremities simultaneously.

This sign, according to these observers, is to be considered as a proof of insufficiency of pelvic fixation in the act of raising the lower limbs, and is frequently observed in the organic palsies of the lower extremity, more especially in hemiplegia. This phenomenon does not agree with our knowledge of the greater facility of associated movements in hemiplegia, and may be interpreted as due to paralysis of pelvic fixation in the flexor movements of the thigh on the pelvis. The symptom, which has also been noticed to occur in paraplegia, should be looked for along with the signs of Babinski and Pierre Marie, in testing motion in hemiplegia. It would certainly seem serviceable in the difficult differentiation between organic paralysis and the neuroses. In hysteria the paralyzed limb is either not raised at all, be it alone or together with the other one; or it is raised equally well in both cases, fixation being an automatic phenomenon distinct from voluntary actions. In hemiplegia the new sign is not invariably present, for the paralysis must be incomplete in order to admit of raising the paralyzed limb at all, and yet sufficiently marked in certain muscles to prevent normal raising of the limb.

Four observations made on individuals having hemiplegia are given in illustration of the author's argument.

ALBUMINURIA AND THE INDUCTION OF LABOR.—Veit (British Gynecological Journal) believes that neither albuminuria in itself nor the kidneys of pregnancy constitutes an indication for the induction of premature labor, though the first signs of the transition into nephritis do. Ascites, hypertrophy of the left ventricle, and still more albuminuric changes in the retina, demand the induction of labor. If the pregnant woman already has nephritis, he does not induce labor until there is some further disturbance of equilibrium in the patient's condition, such, for instance, as the onset of dyspnoea, or of irregularity in the pulse.

THE ENLARGED PROSTATE: ITS NATURE, SYMPTOMS AND TREATMENT.—Wallace (The London Practitioner) says: (1) That it may be a sphincter of the bladder; (2) that it may be a secondary sexual gland. The latter theory is proved by well known facts. The theories as to the cause of its enlargement are: (1) That it is a senile fibrotic change; (2) that it is produced by sexual excess; (3) that it is due to ungratified sexual desire; (4) that it is secondary to sexual degeneration of the bladder; (5) that it is due to perverted testicular secretions; (6) that it is a change normal to advancing years; (7) that it is due to a chronic inflammatory process; (8) that it is an inflammatory catarrhal process; (9) that it is a new growth of an adenomatous nature.

As to the appearance of enlarged prostates: (1) The changes do not occur before middle life; (2) there are white, opaque areas of gland tissue in the normal spongy tissue; (3) these areas often form encapsulated tumors; (4) these tumors contain more fibrous than muscular tissue; (5) there are areas of round-celled infiltration in the organ; (6) the alveoli contain desquamated epithelium cells, polymorphonuclear leucocytes, and amyloid bodies.

The author believes the enlarged prostate is a new growth. The noteworthy clinical symptom is either frequency of micturition or retention. The forces which act in frequent micturition are: (1) Increased tension of the urethra; (2) pressure on the outer side of the intravesical cone; (3) forcing of a large lobe against its smaller fellow. The cause of residual urine is not clear; several factors are adduced. Palliative treatment consists in properly regulated catheterization and rest in bed. Operative treatment is indicated: (1) When the catheter cannot be passed; (2) when it causes pain or hemorrhage; (3) when there is complete retention. Operation may consist of castration, vasectomy, or prostatectomy. The last of these is usually to be preferred, but not when the patient is suffering from acute retention or exhaustion from sepsis. The ultimate results of the operation are usually most satisfactory.

THE TREATMENT OF BRADYCARDIA.—Gibson (The Edinburgh Medical Journal) discusses this subject as follows:

The treatment of cases manifesting this symptom must of necessity be based upon the nature of the underlying lesion. In the instances of organic nerve disease, the opportunities of relief always depend upon the possibility of removing the nervous lesion. In those dependent upon reflex causes, treatment directed to the disturbing factor must be adopted, while in those produced by functional disorders the aim will be to restore the whole nervous system to a more healthy condition.

In cases induced by toxic influences, elimination of the poison is necessary. As regards the metallic and chemical poisons, the proper remedy for each must be employed, and the element of time is necessary. In the cases produced by microbic poisons there is usually a natural period to the symptoms induced by their noxious influence, and it suffices to support the patient during the interval which must elapse before the poison has been thrown off. For most of these poisons strychnine is more or less an antidote, and it acts most beneficially when given subcutaneously. For the cases in which arterial spasm is responsible, the nitrites must be employed, while in those produced by arterial and cardiac degeneration hydriodic acid and the iodides are of paramount importance. In many of these cases the iodine compound may be employed most usefully along with digitalis or strophanthus. This appears to be in itself somewhat paradoxical, but it is probable that these two last-mentioned drugs operate by increasing the nutrition of the cardiac muscle. One interesting point deserves mention. Atropine has been suggested as a means of reducing the heart rate, and when the change of rate is due to nerve influences acting through the sinus, it is useful. Erlanger points out that the auricular beat is under the influence of atropine, while the ventricular is not. This accords with our knowledge that in cases of heart block atropine is useless. It also falls well in with the experience of Dehio, who found atropine very useful in the infrequent heart rate of sinus thrombosis, but of no avail in that of convalescence from acute disease.

In every form of reduced heart rate the diet must be such as to give the least disturbance to the digestive system. A sufficiency of rest must be allowed for the purpose of aiding nature in restoring cardiac energy, while enough of exercise must be obtained to keep up tissue change. It is in this way that massage is of so much importance. If the patient is not in a condition to indulge in sufficient active exercise, massage will come to his aid. The assisted exercises of the Swedish school are most helpful, and particularly those forms which induce deep respiration.

A CASE OF ACUTE SEPTIC PEMPHIGUS.—Crary (Journal Cutaneous Diseases) reports the case of an infant born after prolonged labor. The third day after birth the temperature of the infant rose to 104 deg. and then fell below normal. The physical signs were normal and the skin normal. Two days later an eruption of vesicles appeared over the cheek and about the angles of the mouth. As there had been a case of impetigo in the same ward, this trouble was thought to be of that nature, but did not improve under treatment. The eruption of the vesicles extended over the face, neck and chest, and became larger. Some of the bullæ were very large and broke, leaving denuded areas. Death took place on the twenty-third day of the child's life, twenty days after the rise in temperature and eighteen days after the appearance of the eruption. The temperature throughout the sickness was irregular. Autopsy showed small areas of bronchopneumonia in both lungs, heart normal, lymph nodes and peritoneum normal, spleen congested, fatty infiltration of the liver cells, kidneys large, soft and red, with degeneration in the cortical tubes; suprarenals were normal, umbilicus normal, but in a fusiform dilation of the partially obliterated left hypogastric artery was discovered a circumscribed collection of pus to the amount of about half a dram. Cultures from the blood in the vessels of the general circulation gave the staphylococcus pyogenes aureus; from the liver and from the spleen, the staphylococcus aureus and albus; and from the little abscess, the staphylococcus albus and aureus.

CONTRIBUTIONS TO THE STUDY OF URTICARIA PIGMENTOSA.—Little (British Journal of Dermatology) believes it justifiable to draw the inference that there is a general tendency, probably congenital, to over-production of mass cells in the skin of patients suffering from urticaria pigmentosa, and that the local excessive accumulations of these cells can be caused by various accidental phenomena. The manner of the infiltration of the mass cells suggests a close relation with blood changes and certain examinations in these cases brings them somewhat into line with the results obtained in the class of blood diseases including hemophilia, pernicious anemia and lymphadenomata.

A CASE OF MYASTHENIC PARALYSIS.—Bolt (Monat. Psychiatrie u. Neurologie) reports a case of myasthenia gravis with autopsy findings. Such cases are so rare that each one is worthy of careful attention. This case is that of a man aged thirty years. At the time of the first examination the symptoms which were most prominent were weakness, difficulty in swallowing and in speaking, on account of the great muscular fatigue. As the case progressed the typical symptoms developed in the way of attacks of dysponœa, inability to swallow food, etc., and great weakness. The patient died in an attack of choking. At the autopsy there was an absolutely normal finding in regard to the internal organs. The nervous system showed nothing abnormal except a quantity of minute hæmorrhages scattered through-

out some of the nuclei of the cranial nerves. The author is inclined to agree with Oppenheim, who interprets these as the result of the frequent attacks of choking and are mechanically produced. In the muscles were found in places the cell infiltration of which Wigert among others has written about. He does not attempt to explain the process from the meager post-mortem findings. This case can be set down as a very typical case of myasthenia gravis.

CONCERNING THE BLOOD PRESSURE OF HEALTHY CHILDREN.—Oppenheimer and Bauchwitz (Archiv. f. Kinderheilk) used the three sphygmomanometers most commonly employed at present; the instruments of Basch, Gaertner and Riva Rocci. They conclude that the Riva Rocci instrument is by far the best, that the percentage of error with this instrument is far less than with the others mentioned. They find that Sahli's modification of this instrument may be used both for children and infants. The results obtained while infants are screaming are, however, not trustworthy.

The blood pressure increases with age in childhood. After the ingestion of food, particularly after considerable quantities have been taken, there is an appreciable rise in blood pressure. In infants, the phenomenon is not always noted. The ingestion of large quantities of fluid also raises the pressure. Physical exercise in moderate amount raises the pressure, though in some of the experiments there was no change. Psychical excitement always raises the pressure.

They mention the fact that their experiments, and the observations of most writers, concern only the maximum or systolic pressure. Observations on the diastolic pressure are as yet not available, in any great number. It would appear, however, that by the method of Strassburger (the details of which may be found in the original article, in the Zeitschr. f. klin. Med. Vol. 54) the diastolic pressure may also be recorded, at least in older children, though probably not in infants.

At the last meeting of the German Pediatric Society at Meran, Trumpp reported the results of his studies of the blood pressure in infants in health and disease. He used the Gaertner tonometer, and as the result of 1300 measurements reached the following conclusions (Archiv. f. Kinderheilk. Vol. 42, p. 456): In the waking infant, and in the infant while screaming, the pressure is higher than during sleep. A rise in pressure follows the taking of food. Change of food, particularly the change from breast to bottle, causes a rise in pressure. The normal pressure in infancy is about 80 mm. In bronchitis and pneumonia there is a rise in pressure, comparable to the severity of the lesion. In convalescence the pressure falls. Pus retention increases the pressure. In acute cases, with great loss of the body fluids and of the body weight, there is a fall in pressure. In chronic disturbances of nutrition the blood pressure varies with the condition. Loss of weight usually causes a fall.

Increase in pressure or constancy in the reading, offers an important index, as to whether a gain in weight is due to retention of fluids, or to actual growth.

ABOUT RESORPTION AND PHENOMENA OF IMMUNITY. — Loewenstein's (Arch. f. Hyg. u. Infect. Ur.) very interesting and perhaps important suggestions are derived from experiments, in all of which he inoculated rabbits with the same quantities either of tubercle or typhoid bacilli. In some, the site of injection was the anterior chamber of the eye; in others the subcutaneous or intravenous way was used. The eye inoculation remained local, while the other methods lead to death from tuberculosis. The serum of these animals was examined for their agglutinating quality. The eye animals showed no agglutination, while the others exhibited a high agglutinating capacity. It is shown, thus, that tubercle-bacilli and dead typhoid bacilli injected subcutaneously or intravenously, cause pronounced production of agglutinins, while the same quantities injected into the anterior chamber have lost this quality, and that therefore a purely local infection does not lead to agglutinin formation. It appears that in immunity the same conditions obtain, general infections in most diseases leading mostly to immunization, local infections not (gonorrhea, erysipelas, etc.). Chronic infections are generally local infections, and therefore in them immunity does not appear. After the healing of one focus, another one forms in its neighborhood.

This could lead to attempts to alterate the slow, uniform course of a chronic infectious disease by imitating artificially the course of the acute infections in establishing immunity. As experiments have demonstrated that local infections have no general effect on account of the lack of resorption, the specific causative agents of the chronic infections must be made amenable to resorption, so that an active immunization during the course of such a disease becomes possible. As lately the extent of specificity has been extended even to individual strains of pathogenic microbes, in each case the specific bacillus ought to be utilized. Besides tuberculosis, lepra, actinomycosis, trachoma, suggest themselves as accessible to this

method. The author even thinks that a treatment of lepers by the injection of an emulsion of leprous lesions of the same patient is within the range of success.

Although at the first glance the author's ideas appear somewhat phantastic, they are certainly based upon exact experiments, made also by others, leading to the same result, the demonstration of a local immunization. Wassermann has made interesting reports about this condition in typhoid. In this condition, the gall bladder has become known lately as the main focus for local immunity in animals and man. Very interesting also is the local immunity for vaccinia, limited in the cornea of rabbits (Prowaczek) and rats (reviewer) to the area of the extent of the inoculation surface. His results may be very important for learning to understand the action of tuberculin and its derivatives, together with that of the bacillary substances used for immunization and treatment, down to Behring's latest T. C.

PAGET'S DISEASE, CONCERNING ITS PROBABLE SYPHILITIC ORIGIN.—Auffret (Revue d'Orthopedie) reports a case of a man of forty-five years, who presented deformities absolutely typical of Paget's disease. A careful study of the man's past history and of his hereditary history inclines the author to the opinion that there is certainly reason to suppose that hereditary syphilis, or acquired syphilis, were present and were influential in the production of the deformities in this case. The writer refers to the opinion expressed by Lannelongue in 1903, that Paget's Disease may be seriously regarded as one of the para-syphilitic affections. Fournier also agrees in this opinion, and says that to his mind Paget's disease will undoubtedly one day be classed with tabes, general paralysis, and other late manifestations of syphilis. He has reported two cases, where there was no doubt of an association between Paget's disease and hereditary syphilis. The author suggests that in each new case of Paget's disease, minute research be made in order to discover the probable presence of syphilis in the antecedents of the person affected.

CONTRIBUTION TO THE QUESTION OF TUBERCULOSIS ON THE BASIS OF EXPERIMENTS ON ANTHROPOID APES.—Dungern (Muench. Med. Woch.) states that to understand the relation of man to both types of tubercle-bacilli, the human and the bovine, two methods are at our disposal. The one followed so far, especially in the splendid work of Kossel and his associates, starts out with the cultivation of bacilli from human lesions and the investigations of the racial characters of the cultivated bacilli. The decisive points are mainly the higher virulence for cattle and some cultural differences. In this way the greater majority of cultivated forms were found to be of human character, while, in a few, mainly derived from intestinal and mesenterial lesions showed the characteristics of the bovine bacillus. The conclusion that these observations reveal the true nature of the behavior of the two forms of bacilli would only be justified if we with certainty knew that the bovine-bacillus does not undergo in the human organism a change of its pathogenicity. Experiments to alter the virulence of any of the two forms for different animals have given very contradictory results; altogether, it appears improbable that a change can be brought about in this way. Theoretically, therefore, we have no right, without experimentation on human beings to priorily assume that the bovine-bacillus is less virulent for man and not, perhaps, more virulent than the human form. The other method is the experimentation on animals nearly related to man, that in their biologic-reactions can hardly be differentiated from man (precipitin reaction, etc.). The writer used, during his stay in Sumatra, anthropoids, of which two species of Gibbons (hylobates syndactylus and agilis) were at his disposition. The animals were inoculated subcutaneously with equal doses of living bacilli, the one series receiving the bovine, the other the human culture. All of the animals that did not die of intercurrent diseases died of tuberculosis, which in all cases showed a general dissemination over the body. A difference in the effect in the infection with bovine or human bacilli could in no way be established. Two other series of three animals each were infected by feeding the bacilli. Two of each series died; those infected with bovine-bacilli with a typical intestinal tuberculosis, while the two killed by human bacilli showed the oldest lesions in the lower lobes of the lungs. V. Dungern declares that for the last ones the infection by a passage of the bacilli through the intestinal mucosa and in addition through the mesenterial glands without leaving marks of their presence is to the highest degree improbable. He is rather inclined to believe in a direct infection by way of the bronchial tract. The analogy of these findings with human experiences suggests to the author that bovine bacilli in some way prefer the intestine as a port of entrance, the human the bronchial passages. Van Dungern's work is exceedingly important, as it calls to our mind a factor that seems to have escaped the mind of most observers. Whether the material accumulated by him is sufficient to allow further conclusions is not certain.

But it has shown the way in which, more directly than up to now the importance or harmlessness of the bovine bacillus can be determined. The author insists on its dangerous qualities, an opinion that must have suggested itself necessarily from the results of his experiments.

RHINOSCLEROMA AND ITS TREATMENT.—H. Von Schratter (The London Medical Lancet) exhibited at a recent meeting of the Vienna Medical Society several maps showing the countries of central Europe where rhinoscleroma prevails. One focus of infection is situated in the Polish provinces, with branches going off to Prussia and Moravia, and another is in the Russian frontier districts. Up to the present time about 700 cases have been recorded. The disease is infectious, and consists in a growth of granulating tissues in the larger respiratory canals (nose, pharynx, larynx, and trachea, down to the bronchi of the second order). It has no tendency to ulcerate, but it generally cicatrizes, and might obliterate the lumen of canals. The disease is due to a micro-organism similar to the bacillus of Friedlander. As several persons are known to have acquired the disease without leaving Vienna, it must be presumed that it also exists in that city.

In former times such cases were often mistaken for carcinoma or acne rosacea, especially if the localization was in the alæ nasi. Several patients lived for fifteen or twenty years, and died of other diseases.

URETEROURETERAL ANASTOMOSIS.—Bemasconi and Colombino (Annales des Maladies des organes genito-urinaries) made a series of experiments to determine whether anastomosis between the ureters could not be performed in those cases in which it was necessary to cut a ureter at a point too high to allow anastomosis into the bladder.

A series of experiments on dogs and on the human cadaver convinced them that the operation was practicable, and they developed the following technique:

The abdomen is generally opened for some other purpose, e.g., the removal of a tumor which involves the lower part of one ureter. The operation being completed the posterior abdominal wall is exposed by drawing the descending colon to the left and the other viscera to the right, and an incision is made in the posterior parietal peritoneum in the middle line. The peritoneum is then separated from the abdominal wall in both directions until the ureters are reached. The wounded ureter is then freed from all adhesions, which may present some difficulty, but does not interfere with its nutrition, and is drawn obliquely across the middle line and placed parallel to the other ureter. The lower end has of course been previously severed and ligated. The ureters are closed above by hemostats protected with rubber, and are stitched together by a single suture above and below the point of anastomosis, which should be lateral and about half an inch long. The anterior wall of each ureter is then incised completely for a distance of half an inch, and a continuous catgut suture involving the mucous membrane and muscularis is begun at the lower end and carried to the upper corner and back along the other edge, uniting the edges of the two incisions firmly to one another. It only remains to repair the peritoneum with catgut whenever necessary, and to remove the hemostats. Drainage is not required.

THE TREATMENT OF INDUSTRIAL MERCURIAL POISONING.—Walker, in The London Medical Lancet, recommends prophylactic as well as active. Only healthy and temperate men with sound teeth should be employed in the work, which should be carried on in a well-ventilated room, illuminated by daylight. Only eight hours' work a day should be allowed, no man being permitted to work overtime. Water, soap, towels, and nail-brushes should be provided, and the men advised to wash before leaving work. A good plan is to let the men off five minutes earlier. Nails and hair should be kept short, and any cuts or sores on body, hands, or limbs should be immediately covered up. Overalls and caps should be worn, and where possible gloves. Outdoor coats should be kept in another room. No meals should be eaten in the workroom. In the winter when the men are working with closed windows it is a good plan to have doors and windows opened during the dinner hour. Every man should wash his teeth night and morning with a tooth-brush. Due attention to the teeth the author thinks is most important, as he has never seen a case of mercurial poisoning unless the teeth were decayed or dirty. The author gives a mouth-wash of five grains of alum, five grains of chlorate of potash, half a drachm of glycerin, and water to one ounce, to be used two or three times a day when the gums are soft and inflamed. For general condition the patient should stop work in mercury, get as much fresh air as possible, and never fatigue himself bodily or mentally. By this treatment the nervous system is greatly benefited. Light and nourishing diet is essential for the patient's gastric disturbance. The bowels should be kept open by cascara sagrada, licorice, aloes, etc. Potassium iodide is said to be a specific, but so far the author has had very indifferent results with it. The author has found patients benefited by five grains of bromide

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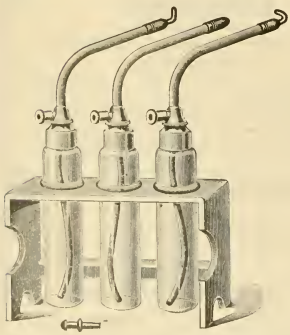

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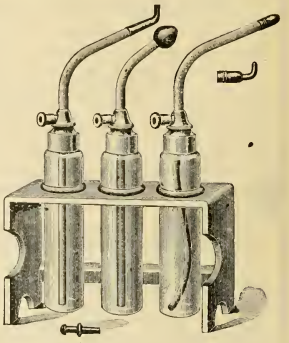

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TABLE OF CONTENTS FOR JULY, 1906.

Original Communications.

Once on a Time There was a Man. An Address to the Profession by T. S. McMullan, M. D., Hertford, N. C., ... 6
Some Points in Clinical Psychiatry of Interest to the General Practitioner, by Isaac M. Taylor, M. D., ... 16
The Annual Oration: Nineteenth Century Progress and Twentieth Century Problems, by Dr. Jas. M. Parrott, Kinston, N. C., ... 1
The End Results---Mental, Physical and Psychic, Following Ablation of Certain Organs and Structures in the Human Body ---A Critical Review of 1250 Operations, by J. Ernest Stokes, M. D., Salisbury, N. C. 12
When The Baby Comes, by Dr. Cyrus Thompson, Jacksonville, N. C., ... 18

Editorial.

House of Delegates---Minutes of the Third Annual Session (Fifty-third of the Society) held in Charlotte, N. C., May 29, 30 and 31, 1906, ... 27
Organotherapy, ... 25
The Robert Bruce Memorial Hospital of Kinston, N.C., ... 25
The Methods of Collier's Weekly, ... 25

Editorial Notes.

Minutes of the N. C. State Medical Society, Fifty-third annual session, 1906, ... 35
Definition of Practice of Medicine, ... 40
English Empiricism, ... 40
State Medical Society of North Carolina, ... 40
The People vs. The Packers 39
The Medical Profession and the issues which confront it, ... 39
The Free Alcohol Bill, ... 40
Tuberculosis in Germany, ... 40
The Boston Meeting, ... 41
The American Medical Editor's Association, ... 41
The Busy Physician, ... 41

Book Notices.

A Manual for the Eclectic Treatment of Disease. By Finley Ellingwood, M. D. 43
Balzac: A Critical Story. By Hippolyte Adolphe Taine, ... 44
Lady Baltimore. By Owen Wister, ... 42
Modern Physio-Therapy. By Otto Juettner, ... 45
Polk's Medical Register and Directory of North America, ... 45
Some Neglected History of North Carolina. By William Edward Ritch, M. D., ... 42
The Diagnostics of Internal Medicine. By Glentworth Reeves Butler, A. M. M. D 43
The Holy Grail. By James A. B. Scherer, LL. D., ... 42
The Mecklenburg Declaration of Independence. By George W. Graham, M. D., ... 42
The Dawn of a Tomorrow. By Frances Hodgson Burnett, ... 43
The Phantom of the Poles. By William Reed, ... 44
The Mystery of the Lost Dauphin. By Annabel Hord Seeger, ... 44
The Life of William Pepper, M. D., LL. D. By Francis Newton Thorpe, ... 44
The Medical Diseases of Infancy and Childhood. By Alfred Cleveland Cotten, ... 45

Abstracts.

A New Sign of Organic Paralysis of the Lower Extremity, ... 46
Albuminuria and the Indication of Labor, ... 46
A Case of acute Septic Pemphigus, ... 47
A Case of Myasthenic Paralysis, ... 47
About Resorption and Phenomena of Immunity, ... 48
Contributions to the Study of Urticuria Pigmentosa, ... 47
Concerning the Blood Pressure of Healthy Children, ... 48
Contribution to the question of Tuberculosis on the Basis of Experiments on Anthropoid Apes. 49
Paget's Disease, Concerning its Probable Syphilitic Origin, ... 49
Prolapse of the Rectum---Pathogenesis and Treatment, ... 45
Rhinoscleroma and its treatment, ... 50
The Enlarged Prostate: Its Nature, Symptoms and Treatment, ... 46
The Treatment of Bardycadia, ... 46
The Treatment of Industrial Mercurial Poisoning, ... 50
Ureteroureteral Anastomosis, ... 50

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REMOVAL OF A LARGE PIN FROM THE LOWER LOBE OF THE LUNG BY TRANSPLEURAL PNEUMOTOMY.—Russell and Fox, in The London Medical Lancet, present the report of a unique operation for removal of a foreign body from the lung. The patient, aged twelve years, was admitted to the hospital in September, 1903. Five weeks previously a large, black-headed shawl-pin had accidentally slipped down the trachea. A week later cough, and later

still bloody expectoration, set in. Fox found by the radioscope that the pin was in the left bronchus two and one-half inches below the bifurcation; subsequently it was found to have migrated further down. The symptoms were slight, and auscultation revealed nothing.

After some experiments upon the cadaver by way of preparation the operation was undertaken. The patient was placed upon the right side and a flap raised. A portion of the left eighth rib six inches long was removed from the posterolateral aspect of the chest, and air was allowed to enter the pleural cavity through a small puncture. The pleura was then opened the full length of the wound. The fingers of the left hand were then passed between the lung and the diaphragm, the lower lobe grasped near its root and drawn toward the opening. The position of the pin was ascertained by gentle palpation with the right hand. A small incision was made in the lung over the pin's head; a small forceps, unopened, was pushed in until the pin was felt, and by hitching the instrument under the neck of the pin the head was easily lifted out of the wound and the pin withdrawn. There was no hemorrhage, but an abscess had begun to form around the head of the pin. No suture was put into the lung. The flap of skin was replaced and sutured except about two inches in the middle, over which portion oiled silk dressings were applied and a dressing put on. In this way free escape of air from the pleura was insured while entrance of air was discouraged. Some pneumonic consolidation took place, as did some suppuration around the incision, but no suppuration took place in the pleura. In twelve days the patient was able to leave the hospital perfectly well.

STASIS HYPEREMIA IN ACUTE SUPPURATIVE PROCESSES.—Herold (Munchener medicinische Wochenschrift,) has employed it in 25 cases, of which 14 were felons, 5 suppurative tenosynovitis, 15 furuncles, and one a cellulitis of the thigh.

The boils were treated by covering them with a glass dome from which the air was exausted. In the remaining cases circular constriction of the extremity was applied above the seat of the lesion. To prevent the formation of blebs and vesicles when employing circular constriction the skin should be protected from the rubber band by a few turns of a primary muslin bandage.

The amount of constriction must be kept under control for at least the first ten minutes. It should be sufficiently great to abolish the pain and yet not cause blueness and coldness of the extremity. If properly applied the skin is somewhat warmer and redder than normal, and there is no numbness of the digits. The amount of the constriction should be regulated again in the afternoon.

The felons were opened by a small incision as soon as a focus of pus manifested itself beneath the skin, and the congestion was continued. No drainage nor packing was used in the wound, but a moist dressing was applied to the surface. The patients stated that pain subsided as soon as the congestion was instituted. On the following day if pus had not already been manifest it was found in a small drop at the tip of the finger. This was evacuated, and within two or three days more the central slough was so softened that gentle pressure caused it to be exuded, whereupon there was left a simple granulating wound.

In treating boils mild suction was employed for fifteen to twenty minutes. twice daily. Boils in which pus had not yet formed rapidly disappeared. In cases in which pus was present the overlying skin was first incised, and then suction during the following days aspirated pus and blood, and boils were cured without futher treatment. With large furuncular abscesses an incision at least one centimeter long was necessary to secure the desired results. The painful packing of these wounds is rendered unnecessary by this method. The boil is protected simply by placing over it a small piece of perforated gauze which is held in place by two small strips of adhesive plaster.

In two of the 14 cases of felon stasis congestion caused an increase of pain and increase of pain and inflammatory signs, so that this treatment was discontinued; in one the patient was cured without suppuration; and the remaining 11 pursued a very favorable course. The average duration of treatment in the twelve cases was eleven days.

In one of the 15 cases of furunculosis, stasis treatment was discontinued in favor of local applications because of widespread outbreak of boils. The remaining 14 cases were cured after an average of 9.2 days of treatment.

Of the five cases of suppurative tenosynovitis of the hand, treatment was ineffecual in one because of the great extent of the effection; in a second improvement during the first two days was followed by an increase in the severity of the symptoms; in the third case a preexisting extensive lymphangitis became worse at the site of constriction and the patient showed marked febrile reaction; in only two cases was treatment pursued till patients were cured, on the fourteenth and twenty-eighth days respectively.

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The cellulitis of the thigh which developed secondary to a kick subsided within twenty-four hours after applying constriction, leaving only the lacerated wound for further treatment.

CYSTOSCOPY BY AIR.—Catheline (Annales des maladies des organes genito-urinaires) says that the advantage of the instrument lies in the fact that vision is direct and not by means of a reflector or mirror, and that the distortion resulting from looking through water is avoided, as well as the obscurity from cystitis or hemorrhage clouding the water. The straight cystoscopes have various disadvantages, especially in the male.

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RELAXATION OF THE UTERUS DURING CURETTAGE.—Gussenbrock (Centralblatt fur Gynakologic) states that usually the uterus relaxes at the beginning of curettement, although he is not sure whether this is due to dilatation of the cervix or to the curettement itself. The soft feeling which was supposed to be due to mucous membrane is due to this relaxation, and the hard, grating sensation, formerly thought to show that the musculature had been reached, is due to the subsequent contraction of the uterine vessels. In some cases the ralaxation is so extreme that the distance to which the curette sinks suggests perforation, and the author reports several such cases, in one of which the sound entered to a depth of 15 centimeters. The author warns against mistaking this condition for perforation and interrupting operations unnecessarily, and against the danger of making a perforation in the relaxed wall, which will harden in a few minutes if the operator pauses.

CONTRACTED MUSCLES OF INFANTILE PARALYSIS.—Fisher says in The London Medical Lancet the early state of infantile paralysis, when it is seen that one set of muscles is in better condition than the opponents, much may be done to prevent the former from becoming intractile. Such movements of the foot upon the leg as will bring the stronger muscles to a full degree of normal relaxation should be practiced regularly. "Passive exercises" are valuless, a due use of the muscles is imperative, and with very young children it requires some little ingenuity to get what is wanted in this respect. Should some intractility of the fibres be already established and the full degree of relaxation not be obtainable, exercises are again to be employed, but no forcible extension of the fibres must be attempted. Gentle handling is very necessary; violent measures will be met by obstinacy. A well contrived appliance can be obtained which will offer resistance to the pull of any one muscle. When such remedial measures fail to prevent the development of intractility or overcome the defect, then tenotomy must be resorted to.

TRAUMATIC ARTHRITIS OF THE KNEE.—Hoffa (Berliner klinische Wochenschrift) this inflammation is a result either from a series of small contusions or from a severe blow or wrench. It begins as a fibrous hypertrophy of the mass of fat underlying the patellar ligament, accompanied by pain and stiffness of the joint. The edges of the synovial membrane may be involved in the inflammation and likewise undergo fibrous hypertrophy, and even give rise by being broken off to free bodies in the joint. Similar conditions following trauma have recently been described in other joints. Treatment consists in massage, and if this fails to give relief, in operative removal of the fibrous masses.

SYPHILITIC NECROSIS OF THE FRONTAL BONE--REPAIR.—Gray and Archibald (Montreal Medical Journal) report a case of extensive syphilitic necrosis of the frontal bone in a woman thirty-two years of age. The necrotic process followed an injury to the forehead, and for a time the character of the necrosis was obscured, but finally it was decided that it was due to syphilis. Operation was performed on January 1, 1905, about six months after the lesion was first noticed. The scalp was reflected by a crucial incision and all the dead bone removed, laying bare the dura over an extent 3 inches transversely and 2 1-2 inches vertically. The wound progressed toward healing, but two months after the first operation it was necessary to remove more bone which had become necrotic. In April the wound was granulating, and the effect was repaired by means of a flap raised over the anterior surface of the left forearm. Within ten days the flap was united sufficiently to allow the pedicle to be cut. The resultant scar, though prominent, was concealed by an arrangement of false hair.

A SECOND CASE OF PNEUMOCOCCUS ENDOCARDITIS TREATED BY ANTIPNEUMOCOCCUS SERUM.—(The London Medical Lancet,) Horder and Scofield report the case of a boy aged ten years, who had enlarged tonsils and a slight sore throat. A few weeks later he developed an acute rheumatism, with a mitral systolic murmur. The joint pains passed off under salicylates, the temperature being normal onthe eleventh day. On the thirteenth day he had pleurisy, with lung consolidation on the right side. This passed off by lysis, but left an empyema, for which a rib was resected. The irregular temperature continued and a left-sided empyema was opened. The fever persisted, 102 deg.-103 deg. F. The mitral murmur was still present. Pulse 140. The blood showed leukocytes 11,600 and gave a good pneumococcus culture. On three consecutive days 2 c.c. of Pane's serum No. 2 were given hyperdermatically, repeated two days later. Nephritis set in in two days and the patient died on the sixty-sixth day of his illness.

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The Treatment of Infantile Diarrhea.

I have found the following to be the most satisfactory method of treatment for the summer diarrheas of infants. Firstly, administer a purge consisting of castor oil, rhubarb, calomel or saline. In my experience the last two are the most efficacious, one-tenth of a grain of calomel being administered every half hour for at least four doses, and sometimes until the motions assume a bilious hue. The saline is given in this manner: dissolve two teaspoonfuls of sulphate of magnesium in a teacupful of warm water, flavor with a little lemon, and then

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give two teaspoonfuls of this mixture every 20 minutes until the bowels are well cleared. Where the motion is of a dysenteric character the colon must be flushed out with some weak antiseptic solution.

So far as medicinal medication is concerned I have had the most brilliant results with copper arsenite given in doses of 1-1000 grain to 1-100 grain every ten minutes for from four to six doses, and then every two hours. A most useful method for removing the horrid foetor of these cases is to give the sulphocarbolates of zinc, soda and lime, of each ½ grain; if given in combination with bismuth the bismuth will no longer blacken the motions, but the sulphocarbolates must be of the purest description or they will produce vomiting and other undesired effects. I find the subgallate or salicylate of bismuth acts better than the subcarbonate or subnitrate.

The other drugs which I most frequently use are cotoine, emetine, and hydrastine. In extreme algid cases I find the most useful aids in a good hot bath, and a hypodermic injection of atropine sulphate 1-500 grain to 1-250 grain, or glonoin 1-250 grain. Atropine sulphate has been recommended for the extreme thirst in doses of 1-5000 grain to 1-1500 grain every half hour. Opium I never use, but give codeine sulphate 1-25 grain to 1-12 grain; or Gregory's salt 1-67 grain to effect. I have always thought that the better way of judging the dosage of narcotics for children was not so much the age as the weight and status proesens of the individual case. The best pain relievers I have found to be hyoscyamine 1-1000 grain, and strychnine arsenate 1-134 grain, every ten minutes to effect. The diet should be albumin water, oat meal water, or plain ordinary water, flavored with lemon; if possible all milk should be stopped for at least 48 hours. The beef teas and extracts are of use as the easiest way of making broths without any grease. The high fever of these cases is best treated by small doses of aconitine or good hot baths.

WILLIAM AYRES, B. A., M. D., Dub.
Brierley Hill, Staff, May 28, 1906.
The Lancet June 2, 1906.

From treating a great many patients with diabetes mellitus with papine I have the experience that I have yet to see a patient that could not stop taking the papine at any time I so directed him. It does not seem to cause the least desire for its continuance, or to create the least disposition to the formation of a drug habit. This has proven itself to me on several occasions when I have had occasion to administer the drug for six or more consecutive months and the patient to be able to stop at the end of that time with no bad effects or symptoms, which would surely have occurred had I prescribed opium or any of its preparations commonly in use today. With that reputation at its back I use it more and more promiscuously today than ever before, and am always pleased with its results.—Extract from an article on "Treatment of diabetes mellitus" by Dr. J. W. Pearce, of North Carolina, in Medical Brief.

Battle & Co., St. Louis, Mo., have just issued the 10th of the series of twelve illustrations of the Intestinal Parasites. They will send them free to physicians on application.

American Medical Association; Officers of Sections.

The following officers were elected in the various sections:

Medicine—Chairman, Dr. Thomas H. Coleman, of Augusta, Ga.; Secretary, Dr. Joseph L. Miller, of Chicago; Delegate, Dr. Nathaniel B. Potter, of New York.

Obstetrics and Diseases of Women—Chairman, Dr. J. Wesley Bovee, of Washington, D. C.; Vice-Chairman, Dr. Edward Reynolds, of Boston; Secretary, Dr. W. P. Manton, of Detroit; Delegate, Dr. Walter B. Dorsett, of St. Louis.

Hygiene and Sanitary Science—Chairman, Dr. Prince A. Morrow, of New York City; Secretary, Dr. Elmer E. Hegg, of Seattle, Wash.; Delegate, Dr. W. Lewis, of Chicago.

Diseases of Children—Chairman, Dr. J. Ross Snyder, of Birmingham, Ala.; Secretary, Dr. George Wentworth, of Chicago; Delegate, Dr. T. W. Southworth, of New York.

Pathology and Physiology—Chairman, Dr. W. L. Bierring, of Iowa City, Iowa; Secretary, Dr. W. B. Cannon, of Boston; Delegate, Dr. W. S. Hall, of Chicago.

Laryngology and Otology—Chairman, Dr. S. M. Snow, of Philadelphia; Vice-Chairman, Dr. Philip Hammond, of Boston; Secretary, Dr. W. Sohier Bryant, of New York; Delegate, Dr. Otto F. Frier, of Chicago.

Ophthalmology—Chairman, Dr. G. C. Savage, of Nashville, Tenn.; Vice-Chairman, Dr. A. A. Hubbell, of Buffalo; Secretary, Dr. A. E. Bulson, Jr., of Fort Wayne, Ind.; Delegate, Dr. S. D. Pisley, of Philadelphia.

St. James Place, Goshen, N. Y., June 4, 1906.
Lane Chemical Co.

Enclosed please find 75 cents in postage stamps, for which I desire a bottle of Sulpho-Lythin.

I regard the product indispensable to my comfort. I am afflicted with a gastric trouble, and use a full teaspoonful of the medicament, dissolved in about a quarter of a glass of hot water, before breakfast every morning. The effect of it is to cleanse and sweeten the mouth and stomach, and give me a comfortable send-off for the first day meal. I am retired from practice, so I cannot abet the merits of your product as it deserves.

Sincerely yours,
(Signed) John H. Thompson, M. D.

An Abuse of the Mails.

Our attention is called to the offer made by the publishers of the Journal of the American Medical Association to send it free to all who pay five dollars for membership in the Association. This is manifestly an abuse of the mails, and contrary to the postal laws. With its free journal, its prize badge buttons, and its many drummers abroad over the land business should be brisk!—Southern Clinic.

The Journal of the A. M. A., by reasons of its wealth, its wide circulation, is in a position to do a vast amount of original, pure, and abstract scientific work that would be of untold value to humanity and the medical profession, but the indications are that these powers will be used by the management to further their personal and financial schemes, and to crush already established legitimate enterprises, and independent, private and unincorporated medical journals.

The characteristic and predominating impulses of a people are manifested in their deeds, and the signs which they display to the world.

The lusts that ruled the peoples of ancient days was shown in their Phallic emblems, their worship at the shrine of an Aphrodite, and their tribute to the court of Phryne, and from signs not hard to see, it may be that the Journal of the A. M. A. in its lust for undisputed power may become the har-

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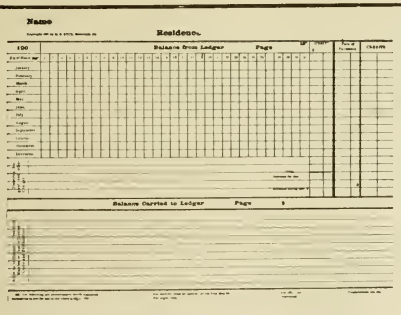

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lot of American medical journalism, displaying its opulent charms of wealth and wide circulation to attract the patronage of any patent, proprietary or other advertisement that will pay the price.—F. M. McIntosh, M. D.—Atlanta Journal-Record of Medicine.

The Davidson (N. C.) Medical College, heretofore an adjunct of the Davidson College, is to be moved to Charlotte, N. C., and established as an independent institution. The trustees of the college have purchased a large lot in the center of the city, and work will shortly begin on the erection of a three-story building, in which the college will be domiciled. It is expected that the building will be ready for the opening of the college as an independent institution, next autumn. The trustees have not revealed theirplans for the future beyond what

SAL-HEPATICA

The original effervescing Saline Laxative and Uric Acid Solvent. A combination of the Tonic, Alterative and Laxative Salts similar to the celebrated Bitter Waters of Europe, fortified by addition of Lithium and Sodium Phosphates. It stimulates liver, tones intestinal glands, purifies alimentary tract, improves digestion, assimilation and metabolism. Especially valuable in rheumatism, gout, bilious attacks, constipation. Most efficient in eliminating toxic products from intestinal tract or blood, and correcting vicious or impaired functions.

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is stated. The announcement is considered important, as it will be the State's first independent medical college. —Atlanta Journal Record of Medicine.

The Proper Strength of Adrenalin Solutions in the Treatment of Hay Fever.

In the treatment of hay fever with Adrenalin Chloride it has been suggested that weak solutions, frequently applied, are apt to yield better results than the occasional application of a strong solution. One of the pathological features of this peculiar malady is a turgescence of the turbinal tissues, due to excessive dilatation of the capillaries. That this is the result of a neurosis involving more or less pronounced local vasomotor paralysis is pretty generally conceded. Overstimulation, by reaction, is very sure to result in a complete paralysis of the vasomotor supply in the region affected. On the other hand, gentle stimulation with weak solutions is not so likely to be followed by a reaction.

These views are in harmony with the published observations of Dr. Crile, of Cleveland Ohio, who found that in a decapitated animal the heart's action was better sustained by the continuous administration of a weak solution of Adrenalin Chloride. Furthermore, this is probably nature's method of supplying this vital principle to the healthy human body through the agency of the suprarenal gland, its constant presence in the blood in minute amount being sufficient to maintain vasomotor equilibrium.

One Method of Substitution.

We are creditably informed that representatives of certain eastern chemical houses are trying to introduce a mixture claiming that it contains the same ingredients as Neurosine.

We have worked up a large demand for Neurosine exclusively with the Medical Profession; it is evident they are trying to reap where they have not sown. Physicians will readily recognize that the intention of the parties referred to is to encourage substitution, therefore, we deem it only necessary to mention this fact to doctors, as we believe they would not knowingly allow their prescription to be filled except with the identical drug prescribed. It is for the profession to determine the efficient results they have obtained in the use of Neurosine, and not to be induced to try that which is claimed to be "just as good." Talk is cheap.

The satisfactory results doctors have obtained with Neurosine in cases where indicated will not, we think, warrant them changing to an untried mixture, or substitute, more especially when they only claim the same formula as Neurosine.

Doctors can rely on Neurosine, Dioviburnia and Germiletum, which we manufacture exclusively for physicians to prescribe, being always kept up to the high standard of efficiency.

DIOS CHEMICAL CO.

Treatment of Hay Fever.

There is abundant clinical evidence to establish the claim that Uric-Antagon controls the progress of this disease and gives relief where its administration is continued throughout the season. Uric-Antagon is a purely vegetable pharmaceutical preparation combining the alterative properties of Phytolacca Decandra, Serenaea Serrulata, Stillingia Sylvatica, Cimicifuga Racemosa, Aconitum Napellus, a trace not sufficient to unduly depress heart action. It contains no salicylate, opium, colchicum or potassium.

Favorable reports on the use of Uric-Antagon in hay fever have come from so many responsible physicians that a trial of this carefully compounded preparation should be given in all of these cases. A full size bottle will be sent to any physician who will pay expressage. Address

THE ANTI-URIC COMPANY,
Peoria, Ill.

Physicians who prefer to encourage the process of digestion rather than to resort to artificial aid, claim that Seng gives most satisfactory results. Seng acts purely as a secernant to the secretory glands of the alimentary canal; and panax ginseng, the root from which it derives its physiological action, has been used for centuries by the Chinese for stomach and all other troubles. Of course, many claims made for it by the Chinese are ridiculous, but that it has a specific stimulating action on the secretory glands is generally conceded.

Through considerable experience with Chiona this remedy has convinced me of its sterling merit in the treatment of biliousness and all other hepatic derangements, functional and organic. I have come to regard it as an ideal hepatic stimulant, with perhaps a wider range of therapeutic adaptability than any cholagogue medicine I am acquainted with. Perhaps its greatest advantage is the fact that its use is not followed by any reaction tending to induce a sluggish condition of the stomach and bowels, such as follows the use of many other remedies. It is a pharmaceutical triumph.—D. S. Maddox, M. D.

As to Proprietary Medicines.

The bitter and selfish fight being made by the Journal of the American Medical Association, some of its satellites, and a few lay papers, on pharmaceutical preparations, has degenerated to a point, where misrepresentation and positive mendacity have become their chief stock in trade. While an honest and upright fight was being made for what was supposed by some to be a principle of medical ethic, we were willing to let the matter run its course, knowing and believing that right would in the end prevail. But when misrepresentation and other unfair means are used to inflame and mislead the profession and the public, we think it time for us to say something about the matter and place ourselves on record, by setting forth the truth regarding these attacks, in so far as it appears to us.

For instance, Collier's Weekly published a list of 22 cases of poisoning "from headache remedies" and this was referred to gloatingly by the Journal of the American Medical Association and other medical journals. Yet not one of them all had the grace, fairness, or honesty to later publish the fact, that a careful investigation of these 22 cases by the Western Druggist and the National Druggist disclosed that only four cases were bona fide, the remaining 18 cases of death from morphin, strychnin, arsenic, Bright's disease, and other diseases, not in the remotest way connected with headache remedies. One of these trumped-up cases was even found to have been caused by a gunshot wound.

From time to time, apparently inspired reports of deaths or serious illness from the coal-tar relievers appear in the daily press, and investigations of these reports almost invariably show them to be absolutely without a basis of fact, or to have so little truth behind them as to prove beyond peradventure of a doubt, that they are inspired oy some one whose purpose it is to mislead, regarding the safety of these remedies, if properly used.

The very evident purpose of these reports is to create alarm, regardless of the facts, touching the coal-tar preparations, so that when the

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Listerine is an efficient and very effective means of conveying to the innermost recesses and folds of the mucous membranes that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of Listerine, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

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Listerine Dermatic Soap contains the essential antiseptic constituents of eucalyptus (1%), mentha, gaultheria and thyme (each ½%), which enter into the composition of the well-known antiseptic preparation Listerine, while the quality of excellence of the soap-stock employed as the vehicle for this medication, will be readily apparent when used upon the most delicate skin, and upon the scalp. Listerine Dermatic Soap contains no animal fats, and none but the very best vegetable oils; before it is "milled" and pressed into cakes it is *superfatted* by the addition of an emollient oil, and the smooth, elastic condition of the skin secured by using Listerine Dermatic Soap is largely due to the presence of this ingredient. Unusual care is exercised in the preparation of Listerine Dermatic Soap, and as the antiseptic constituents of Listerine are added to the soap after it has received its surplus of unsaponified emollient oil, they retain their peculiar antiseptic virtues and fragrance.

A sample of Listerine Dermatic Soap may be had upon application to the manufacturers—

Lambert Pharmacal Company
ST. LOUIS, U. S. A.

Bronze Medal (Highest Award) Exposition Universelle de 1900, Paris

State Legislatures are in session next winter, the Ladies' Home Journal bill and other similar bills, classing the coal-tar preparations as poisons, will pass the various legislatures. We are pleased to say that this scheme to create a fear of coal-tar preparations by false reports, will fail, because statistics are being carefully compiled, showing the number of such cases falsely reported or greatly exaggerated. These statistics, presented to the various State legislatures where such bills are under consideration, expose the under-handed methods being used, and will act as a decided boomerang to those who consider it honorable to use disreputable means to accomplish their ends.

The coal-tar derivatives appear to be the particular butt of attack by those who are creating the present epidemic of hysteria regarding these remedies and the most ridiculous and previously unheard-of statements are made concerning them. Already bills have been introduced in several State legislatures classing all coal-tar derivatives as poisons, yet Collier's, assisted by the Journal of the American Medical Association was, as stated above, able to find only four bona fide cases of untoward effect resulting from over-doses of all the various coal-tar preparations sold in the United States and Canada. Yet there have been recorded over 100 cases of quinin blindness, numberless cases of quinin deafness, thousands of cases of skin lesions and other untoward results from small doses of quinin, not to say anything of the numerous deaths caused by it. And quinin is considered a safe remedy, and is not mentioned in the Schedule of Poisons referred to in the abovementioned bills.

The coal-tar preparations are not poisons, as that term is usually understood, and every person familiar with medical literature knows—though all may not publicly admit it—that there are more cases of poisoning by almost every potent drug, than by all the various coal-tar preparations combined. This, in spite of the fact that there are probably more doses of the coal-tar pain relievers taken every day, than are taken of any other five drugs.

Some of these preparations we have been using for a number of years and with every degree of satisfaction and most gratifying results. One of which in particular, known as Antikamnia, has been on the market for over fifteen years, and during all that time, not one well authenticated case of untoward effect has ever been reported where the proper and advised dose was taken. To call a preparation "Poison" which never acts even unpleasantly, unless taken in greatly excessive doses, is ridiculous, to say the least. Salt in excessive doses is a poison, and has often produced death. Al food contains the most powerful poisons in minute quantities; for instance, prussic acid in fruits, other poisonous substances in meat, fish, eggs, milk, bread, beer, many vegetables, mineral waters, etc. Therefore, these artic es of food and drink could more justly be called "poison" than to call a medicine a poison simply because it contains such drugs or a coal-tar preparation. It is essential that a certain prescribed quantity be exceeded to convert any substance into a poison. However, all drugs which are poisonous when given to human beings in doses of a single grain or less, are commonly called "poisons" and these drugs are the substances that people think of when poison is mentioned. To call other drugs "poisons" is misleading, unjust, and is evidence of pure malice.

Of all dishonorable and unprincipled means to injure an article of trade, be it medicine or other substance, the worst is that which libels its character. Numbers of pounds of the coal-tar preparations have been administered in the past twenty years, with injurious results from over-doses so rare as to be the marvel of medical history: The New York Quinine & Chemical Company alone sells over 100 tons of acetanilid a year. No other potent drug is as safe as these remedies, and those who are attempting, from ulterior motives, to create the impression that they are poisons, are doing an act for which all right-minded people ought to, and will condemn them.

"What is a Poison?" is the title of a very able article by Dr. R. G. Eccles, published in American Medicine on December 9 and 16, 1905. Every medical man and especially every editor of a medical journal should read the said article, now that the attempt is being made to classify the coal-tar preparations as poisons, and he will see the utter absurdity and the plainly dishonest motive behind the work being done to misrepresent these safe and efficacious remedies. If the coal-tar preparations are poisons, then quinin, mur. ammonia, chlorate of potash, calomel, sodium bicarb., santonin, and the bromides are poisons as well, as are many other drugs which are now considered safe remedies, and which are never referred to as poisons, in the common acceptation of that term.

We have used quite freely Antikamnia in our remarks, for the reason of its great popularity and the universally good results that have been obtained by its judicious and proper use. But there are others that have been unjustly decried and the effort has been made to put under the ban anything and everything, no matter what, just so that it is a "Proprietary." Our medical education was obtained at the feet of a Gamaliel in the profession, one of the most ethical of the ethical, Dr. Wm. K. Bowling, aided by personal instruction from his colleagues, Drs. Paul F. Eve and Wm. T. Briggs, all of this city, and all of them at one time presidents of the American Medical Association. We were taught by them that it was a duty to use anything under the heavens above, on the earth beneath, or under the latter and in the waters thereon, yes, anything that in our opinion or belief would relieve pain and suffering and stay the hand of death. Regular medicine has no bounds to the domains from which it is justifiable in procuring materials to aid the injured, the sick, and the suffering. It is absolutely unlimited in the fields from which it may obtain remedial measures or substances for the "relief of any of the ills that flesh is heir to."

Briefly and cursorily I will mention other "Proprietaries" concerning which, having had satisfactory information, I was justified in making trial, and found them by personal observation to be thoroughly reliable and satisfactory; and consequently shall continue to use them, notwithstanding they are decried by a few extremists following in the lead of one who is so very extra ethical for the same reason that a thief will often be the first one to raise the cry of "stop, thief" to ward off suspicion from himself. But of this more anon.

Now, there is "Fellow's Hypophosphites," which I use and have used for years, from the fact that it is far easier to write than it is to put down in detail the various ingredients in the old formula of Churchill; and then, again, I am confident that by doing so there is far less liability of getting inefficient ingredients than I would if I had written the formula and sent it to many of even the leading prescription pharmacies in any city. And not only is it of definite strength as to all its component parts, all of which I can depend on as being carefully select-

JOHANN HOFF'S MALT AND IRON

(PEPTONATE OF MANGANESE AND IRON.)

Is an ideal preparation to build up

BLOOD AND BODY

(Each wineglassful contains 1 gramme of Peptonate of Manganese and Iron.)

It is a Nutrient Oxygen Carrying Agent

Contains only a minimum amount of alcohol (less than 3%); is more readily absorbed into the circulating fluid than the iron preparation by itself.

Johann Hoff's Malt and Iron is of marked and certain value in all forms of Anæmia, Chlorosis and general debility.

EISNER & MENDELSON CO. of New York,

SOLE AGENTS.

ed, but it will always cost my patients less. The same may be said if I prefer to write "Robinson's Hypophosphites."

I use Tongaline because I know that it contains the salicylic acid from the oil of wintergreen and never the synthetic preparation. Furthermore, I know from repeated trial that it is a most excellent remedy in neuralgic conditions in which I want the benefit of this acid together with colchicum, etc.

Battle's Bromidia contains in each fluidounce a definite quantity of chemically pure bromides, chloral, and cannabis indica, enabling me to give a suitable and sufficient dose in a teaspoonful, which I have never been able to accomplish in the best retail pharmacies in this or any other city. I have also found Battle's Iodia, Papine, and Ecthol most excellent and thoroughly reliable preparations—just as much so as "McMunn's Elixir," or any of the "official preparations" of the U. S. P.

More than twenty years ago, in a consultation with Dr. John H. Callender of this city, then Superintendent of the Hospital for the Insane in the middle division of this State, he suggested, taking a copy of the prescription from his memorandum book written by the late Dr. Jno. P. Gray, then Superintendent of the Utica Asylum of New York, a tonic combination that is now put up under the "copyrighted" name of "Gray's Glycerine Tonic," and which I use very often, finding it more uniform in its definite strength and more reasonable in price than I ever did during the years I used it and had it compounded by the best retail prescription houses in this city.

Hayden's Viburnum Compound, Wayne's Elixir, etc., are but the well tried and definitely proven working prescriptions of able and active regular practitioners of medicine, far better prepared and more reasonable in price than if one should write out and depend on any prescription druggist for compounding the original formula.

Antiphlogistine has relieved my patients and their friends from the many annoyances of the old-time poultice, giving better results. Listerine is so well established as a "definite and standard" combination, as is Glyco-Heroin (Smith), Glyco-Thymoline, Cystogen, and others that they will long withstand the attacks that have been made on "proprietary medicines."

But why this "hue and cry" that has recently been raised as to "copyrighted" or "proprietary" medicines? The enterprising managers of Collier's Weekly and the Ladies' Home Journal, in order to get the advantage in a purely business point of view of other periodicals of like character, commenced a crusade against patent and proprietary medicines. Regardless as to whether they were good, bad, or indifferent, they made a wholesale attack. They simply struck out on new lines, expecting to find "pay dirt." It was strictly a matter of exploiting in a new field, expecting to realize thereon in a purely financial way. Well, that is their privilege, provided that they do not resort to libel.

Now, as to the Journal of the American Medical Association. In 1857 we had the honor of being present at a meeting of the American Medical Association held in this city, being then in our novitiate; and in 1876 became a member of the Association at its Louisville meeting, serving as a delegate to the Association at the meeting in 1877 in Chicago, and a member of the Nominating Committee that year and in several subsequent years. For ten years we missed attendance on but few meetings of the Association.

A little over a quarter of a century ago, the Journal of the American Medical Association was established, and I have in my possession several letters from the "Father of the Association" in his own handwriting acknowledging my humble efforts in this movement. Of late I have not been present at many of the meetings of the Association, but have had the pleasure of "keeping in touch" with it, although for the most part, being but a "looker-on in Venice," yet my interest therein has been continuous and sincere. The Journal under the management of its able, efficient, and "ethical" editors, Dr. N S. Davis, J. C. Culbertson, Jno. Hollister, and Jno. B. Hamilton grew apace and became "a power in the land."

Yet, in the years and under the editorial management of these "regular members of the medical profession," it accepted the advertisements of all the proprietary preparations mentioned previously and some others. These "redacteurs en chef," being "like Cæsar's wife," were not afraid to admit to its advertising space preparations that had proved of benefit to many in the land. But at a later day, one who had received his diploma from a Homeopathic school, who had "claimed a special designation and traded on the same," one who had been practicing sectarian medicine, was placed on the editorial tripod of the then greatest medical journal in America, and at once, although placed in this high and responsible position by the "Board of Trustees," began his control of them. Yes, it was and is a case of "the tail wagging the dog." And, "out-Heroding Herod," under the inspiration of Collier's and the Ladies' Home Journal, as has before been done by the guilty thief, he raises the cry of "STOP, THIEF!"

Under his management he would strike down reputable manufacturers who had been recognized as honest and reputable by his able predecessors in so responsible a position, and wherefore? Has he become uneasy as to his tenure of office? Is he uneasy lest some one dig the ground from under his feet? Is it for love, affection for, and sincere devotion to "Regular Medicine?" There is a motive in all things that inspire men to action. What is his? He is shrewd, he is sharp, but his antecedents did not justify his being placed in the editorial chair of the official organ of the regular profession. Will he be sustained in the days that are coming?

We know full well that the charge will be made that this editorial article is inspired by the financial consideration of the advertising pages of this Journal. To this we will say, that in all the years that have passed since the establishment of the Journal of the American Association we have held as our criterion of the proprietary preparations the Journal of the Association. If an advertisement appeared in its pages, we could feel that we were doing no wrong in admitting it to ours. And, as before stated, when we know that any article or combination of chemicals and drugs will prove beneficial to the sick and suffering, we will not hesitate to use them, and also to advocate their use by others, notwithstanding what has been said or may be said by some very small per-SIMMONS.—Editorial in May Number of The Southern Practitioner, Nashville, Tenn.

The Perils of Wood Alcohol and Formaldehyde.

Every package of witchhazel should be carefully tested for wood alcohol and formaldehyde. These ingredients are very dangerous, even when used externally, and in New York State the use of wood alcohol in any preparation whatsoever, is forbidden under a penalty of $2,000.00.....Many unprincipled manufacturers use wood alcohol, some rely on formaldehyde, while again others use a combination of these with grain alcohol.—Practical Druggist.

Wood alcohol exerts its toxic effect only less readily when used externally than when taken into the stomach. Its use in the manufature of liniments and other external preparations is no more to be considered than its employment in the manufacture of essences and similar articles meant for internal consumption.—Bulletin of Pharmacy.

"All aqueous witchhazel distillates shipped inland contain added formaldehyde to preserve it until it reaches its destination, where it is then fortified by the addition of alcohol."—T. D. Wetterstrcom, National Food Commissions' Assn., Portland, Ore., July, 1905.—The addition of formaldehyde should no more be "tolerated" here than in other substances used as food, or in medicines, for the obvious reason that it is an irritant poison, the powers of which are probably not fully known. Its vapor may have some effect on the eyes which we have not yet learned to distinguish.—Editor, The Druggist' Circular.

It is reported that the majority of several hundred samples collected of distilled extracts of wichhazel sold in Chicago drug stores have been found to contain wood alcohol, instead of grain alcohol, and even formaldehyde..... The spirit of intolerance against the sale of preparations containing wood alcohol, whether for internal or extenal use, is constantly growing. and it may be expected that the practice will meet with more severe punishment in the future.—Bulletin of Pharmacy.

The poison perils of the common commercial and unidentified witchhazels of the market, adulterated with Wood Alcohol and Formaldehyde, may be entirely avoided by prescribing and dispensing only Pond's Extract of Hamamelis Virginica. Pond's Extract has been the standard of purity, quality and strength among distillates of hamamelis for more than half-a-century and its many medicinal and recognized virtues have doubtless contributed materially to secure recognition for Aqua Hamamelidis by the Committee of Revision of the U. S. Pharmacopœia, 1900, and its inclusion in the latter as "official."

The American Medical Association and Independent Medical Journalism.

We understand that in the House of Delegates of the American Medical Association, at Boston, the committee took occasion to deny that there was any purpose on the part of the national association or of the State societies to injure independent medical journals, many of which, it was admitted, serve a valuable purpose. We are glad to have this disclaimer from the national association, but as regards the State societies, we think they must speak for themselves; for some of them, through their official organs have explicitly expressed a desire for the suppression of the independent medical journal.—Medical Review.

We call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another

Antiphlogistine

(Inflammation's Antidote)

Apply hot
and
Thick

Entero-Colitis, Cholera Infantum, Peritonitis.

IN acute inflammatory conditions of the intestinal tract Antiphlogistine" will be found of great value. It will not take the place of proper diet and internal medication, but by relieving the local congestion and soothing the nervous system, it will be found to be an inestimable adjuvant.

THE DENVER CHEMICAL M'F'G. CO.
NEW YORK

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page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

Dysenteric conditions all present certain physical signs which are in common, such as the frequent stools, great exhaustion and weakened heart action dependent upon the virulence of the poison. Recognizing this toxic manifestation and the constantly increasing danger of autoinfection, our indicated treatment is one which will assist the effort nature is making to render the tract aseptic by ri ding itself of the contents of the bowel which has been a fertile field for disease producing germs, to correct the existing fermentation and restore surface circulation which has been seriously interfered with. For this purpose a high colon flush of Glyco-Thymoline in a 10 per cent. solution at 105 degrees should be used at least twice daily. This solution exerts a marked inhibitory effect upon the growth of putrefactive and pathogenic bacteria, depleting the membrane of its products of inflammation and restoring normal glandular secretion.

Cystogen-Lithia Tablet.

An effervescing tablet of Lithium Tartrate 3 grains and Cystogen 3 grains, has recently been placed on the market. Insomuch, as the idea of this combination was given us by observing the large number of physicians using Cystogen with Lithia, in Gouty and allied affections, we bespeak for this tablet an extensive use. Put up in packges of three tubes containing three dozen effervescent tablets. Samples and literature on request.

Cystogen Chemical Company,
St. Louis, Mo.

Shall we Wait for the Serum?

For years we have contended that very decided relief followed the complete emptying and disinfecting of the alimentary canal, in many forms of disease; and that this in itself showed that the portion of the symptoms thus removable must therefore be due to the presence of this matter in the alimentary canal. But it seemed that the professional ear was so absorbingly trained toward Germany that nothing uttered on this side of the ocean could penetrate the tympana of our brethren. Whenever we did succeed in inducing someone to listen to us, we were impatiently informed that that theory had been duly considered and had been abandoned long since. The non-mechanic therapeutics of the prevalent cliques seemed to be comprised in the four words—Wait for the serum! Meanwhile the field of practice was to be abandoned to the surgeon and the quack. —American Journal of Clinical Medicine.

The medical profession has not only made its advances in the line of appliances in the treatment of diseases, but it is equally as well represented with the improvements that have been made on the line of a general antiseptic. There are so few antiseptics offered to the medical profession that can be relied upon in all cases where an antiseptic is indicated that when one is offered to the profession it is not surprising that it received such a reception. One of the best antiseptics that is now offered to the medical profession and one that can be used with success in the treatment of minor and major surgery goes under the name of Campho-Phenique. It has been on the market for the past twenty-five years and there are very few physicians of any prominence today who have not used this remarkable preparation.

Angina Pectoris and an Arterial Reflex of Abdominal Origin.

Russell (British Medical Journal) records his observations regarding an arterial reflex having its origin in the abdomen, the importance of which he thinks has not been fully appreciated. While the active processes of digestion are going on, there is an influx of blood into the splanchnic area. This drainage into the abdominal vessels is balanced in the general circulation by a systemic arterial contraction, evidently a reflex phenomenon originating in the splanchnic system, passing to the vasomotor center in the medulla, and then transmitted to the systemic arteries. The changes in the systemic arteries are a reduction in size and an apparent thickening of the arterial wall. The degree of these changes depends on the kind of meal which has been taken. In the big eater and the wine-drinker the arterial contraction is associated with a rise of blood-pressure and a true increase of arterial tension. This reflex varies in delicacy in different persons. It exists in all. He believes that there is a relation between this phenomenon and angina pectoris, and cites several instances in support of his contention. The author says that this hypersensitiveness of the vasomotor center, even in grave angina pectoris, can be reduced, controlled, or even removed by dietetic measures, with the result that the anginous seizures are removed or greatly modified. In cases where the arterial spasm is associated with great anatomic change, either in the myocardium or in the coronary vessels, absolute cure can hardly be looked for; but in all cases the symptoms of angina pectoris may be much ameliorated by conducting the treatment in accordance with what they indicate. Owing to the varying degree of intensity of the symptoms, the writer suggests that in classifying the cases, the simplest distinction might be found in the terms angina pectoris major and angina pectoris minor, the former being confined to those cases in which there is believed to be permanent anatomic change in the heart or its vessels.

Advantages of the Strontium Salts.

F. S. Mason, (La Tribune Medicale,) says the strontium salts are preferred by progressive physicians because they do not depress patients as do the potassium or ammonium salts.

Sodium chloride is so liberally absorbed with food that a great toleration of all sodium salts is established, hence larger molecular doses of bromide and iodide are required than of strontium or potassium salts.

Strontium salts are to a great extent intestinal antiseptics, preventing secondary fermentation and insuring better assimilation of nourishment. This is especially marked in the case of the iodide where large doses are required for antisyphilitic treatment during a long period.

In cardiac troubles, and where small doses of the iodides are indicated, the strontium salt is well tolerated, and is almost tasteless, especially when exhibited with syrup of orange peel.

It is certainly to be preferred to the potassium iodide for syphilitics, since instead of depressing the patient, it stimulates the appetite and nutrition, which is so essential to this class of patients.

Smaller doses are required of bromide of

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GERMILETUM is Really a Specific in CATARRH

That which has proven to be the ideal solvent and stimulating alkaline antiseptic is GERMILETUM, its persistent use twice or thrice daily, full strength, or diluted when the mucous membrane is sensitive, will effectually cure the worst advanced case of chronic nasal catarrh.

Dr. A. W. Latimer, late Physician to the St. Louis City and Female Hospital.

I have used GERMILETUM in many cases of catarrh. I consider it a most efficient remedy and really a specific in catarrhal affections.

Dr. A. U. Williams, Hot Springs, Ark.

I have used GERMILETUM in many cases of rhinitis with most excellent results. It is also the most efficient remedy in catarrhal affections.

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I have used GERMILETUM in the most aggravated cases of catarrh and have cured some of the worst cases. I consider it as near a specific in catarrhal affections as can be.

Dr. A. Jordan, Nashland, Tex.

Nasal catarrh, which has long been an odium of medicine, may now be successfully combated by the alkaline antiseptic—GERMILETUM.

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Pil. Sumbul Comp. is especially recommended for "nervous and hysterical women who need building up." This pill was largely used by the late Dr. Goodell; in fact he originated the formula.

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Ext. Sumbulis,	gr. i.
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Dose, 1 or 2, three times a day.

This pill is serviceable in neurasthenic conditions. loss of sleep, headache or fatigue.

If you would always have uniform results from Pil. Sumbul Comp., specify "Wm. R. Warner & Co."

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Summer School for Graduates. The clinics and laboratories of this Department are open throughout the year for the benefit of those who wish to engage in graduate work. For those whose time is more limited, a comprehensive course is given, beginning this year May 7, and continuing for a period of six weeks. This course is designed to meet the needs of the practitioner.

For further information, apply to the *Dean of the Medical Department, University of Pennsylvania, Phila.*

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strontium than of bromide of sodium, as owing to the tolerance established by habitual use of chloride of sodium in food, all the sodium salts show less marked physiological effects on the economy

There are many objections to ammonium bromide, and it is little used.

It is hardly necessary to recapitulate diseases in which the strontium iodide and bromide may be used, for they are suitable for all cases where iodides and bromides are indicated.

Clinical data show a marked improvement in cases of albiminuria when the solution of lactate of strontium is prescribed. This applies to the albuminuria of pregnancy, post-scarlatinal nephritis, the early stages of Bright's disease, and in some cases of hepatic glycosuria. In the albuminuria of pregnancy it has been found advisable to combine the solution of lactate of strontium with some preparation of iron, pre-

ferably the tincture of chloride, or Basham's mixture, and the same combination is recommended in the nephritis following scarlatina.

Like many other therapeutic agents, the rationale of the action of lactate of strontium is imperfectly understood, but a plausible theory is that it exerts a profound influence on the processes of nutrition and reduces the formation of alimentary toxines to a minimum.

Some physicians are of opinion that appendicitis is sometimes indirectly caused by chronic constipation from accumulation in the intestines of micro-organisms and ptomaines. It will be found advisable in such cases of constipation to give a saline laxative every morning (sulphate or phosphate of soda) and a tablespoonful of solution of lactate of strontium (P. J) before each meal.

Combined with bromide of strontium (P. J.) the lactate is most successful in diabetes, owing to the sedative action of the bromide on the nervous system, thereby greatly reducing the amount of sugar, as well as assuring better assimilation of food

---

Etiology and Treatment of Infantile Convulsions.

Grant McDonald in The Leucocyte, considers the common causes and the treatment of convulsions in infants and children. Holt says "the principal predisposing causes are infancy, conditions affecting the nutrition of the brain, and hereditary influence. Of all these factors, the most important one is the instability of the nerve center which is characteristic of infancy and is associated with the non-development of the voluntary centers of the cortex."

Rickets is a very common cause of convulsions, which are often one of the earliest symptoms of that disease, and should always be looked for when there are convulsions without evident cause! In such cases a distinct improvement of the rickets under treatment is accompanied usually by a cessation of the convulsive tendency.

An inherited nervous constitution is another important cause, and may be seen in several members of the same family; a fit will arise from a slight elevation of the temperature or from a trivial peripheral source of irritation which would do no harm to less excitable individuals.

Among other predisposing causes may be mentioned anæmia, malnutrition, syphilis, disturbance of nutrition, or debility from any acute disease.

In almost every case of serious organic disease of the brain there may be convulsions at some stage. Thus we meet with them in cases of tumor, abscess, concussion, hemorrhage, tubercular and non-tubercular meningitis, microcephalus, and all other numerous developmental and inflammatory brain lesions which produce idiocy. Also where the cerebral circulation becomes engorged from any cause, as in whooping-cough, and in some forms of congenital heart disease. They may also occur in cerebral anemia, such as accompanies severe diarrhea and general hemorrhage.

A sudden rise in temperature is very apt to be followed by convulsion in many children, as, in the begining of pneumonia, scarlet-fever, measles, erysipelas, malaria, influenza, and in some instances in chicken-pox, typhoid fever, and diphtheria. Uremia may also be mentioned as not an uncommon cause.

An exciting cause is, very frequently, the presence in the stomach or intestines of undigested food, known as auto-toxemia. Acute and chronic indigestion are to be ranked among the most frequent causes of convulsion, both in infants and older children.

We also have what we call peripheral irritation of nerves, which cause convulsions, especially in those who are suffering from rickets, such as difficult detention, middle-ear inflamation, or foreign body in the ear, phimosis, burns, fractures, renal or intestinal colic, retention of urine or intestinal strangulation, and a large number of poisons, metallic and vegetable, give rise to convulsions.

Having outlined the main types of causes, we may now proceed to make a diagnosis, by elimination; to do this we must examine the patient thoroughly and draw any inference we can from his temperature, from the rate and character of pulse and respiration, also from state of nutrition and strength.

There can rarely be any difficulty in recognizing an attack of convulsions. The difficulty consists in determining which one of the many causes is to blame for the fit. Therefore, we must consider carefully the real cause before we begin the general treatment. One of our first guides is the patient's age. When convulsions occur in a new-born babe, we naturally suspect them to be due to some injury received during birth. In many cases of difficult birth, as breech presentation, forceps delivery, protracted labors, there is intracranial hemorrhage, and if situated about the base and in large amount, it is generally fatal, but if over the vertex it may be very large without causing death. In these cases fits generally occur before the end of the first fortnight. The history of such a case will usually aid us in our diagnosis. The next condition in which age is considered is epilepsy. In infancy epilepsy is certainly the least probable diagnosis; here also we must rely on history of previous attacks, the outset being very sudden with a cry or fall, biting the tongue, a tonic spasm before the clonic, etc. Perhaps before these questions have risen in our minds we have noticed the patient has a very high temperature, and we proceed to take its temperature per rectum (let me say right here a baby's temperature should always be taken per rectum to procure a correct report), or we may have noticed a distended abdomen; these together with history of overfeeding or injudicious feeding may lead us to make a diagnosis of auto-toxemia, or the onset of pneumonia, scarlet-fever, malaria, or some other acute disease, which can only be determined by carefully watching the patient's symptoms for twenty-four or thirty-six hours. Examination of the urine should never be omitted in cases of doubtful origin. Dentition and worms should be cousidered among the least probable, never as the most probable of reflex irritation. In obscure cases rickets should always be suspected as an underlying cause, and the child should be examined for other evidences of that disease.

Convulsions occurring in brain disease, except in acute meningitis, are not as a rule accompanied by any marked rise in temperature. If there are convulsive movements without loss of consciousness there is probably a cortical lesion present. Should the fit be followed by prolonged stupor, this points to organic disease of the brain or membranes. If the seizure consists of a very slight passing loss of consciousness—a sort of petit mal—this in children as well as in adults often indicates serious organic disease of the brain.

Prognosis depends upon the age of the patient, its endurance, and the cause of the convulsions. In idiopathic and reflex cases it is generally good, unless the child is very young

SUMMER THERAPY

is largely synonymous with the treatment of stomach and intestinal disorders.

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represents the most potent combination of digestants, forming a powerful remedy for the treatment of every form of indigestion as well as an elegant vehicle for any drug indicated in these disorders.

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is another prescription to which we invite the especial attention of the medical profession at this time, as ASTHMA and HAY FEVER are also troubles which the advent of spring and summer carry in their wake more than any other season. RESPIRAZONE has proven itself the most reliable remedy for these conditions and for all catarrhal and spasmodic respiratory disorders, such as acute bronchitis, laryngitis, whooping cough, spasmodic and catarrhal croup.

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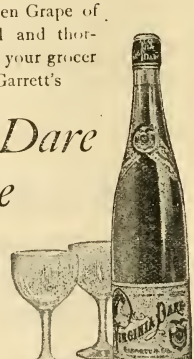

one of the finest of the Scuppernong products. It is a white wine, moderately sweet, with an aroma and bouquet approached only by the rare and costly Tokay wines from Hungary.

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If possible, give us your wine merchant's name.

The book tells when, where and how to correctly serve wines; gives valuable recipes for many delicious beverages; describes Garrett's "Virginia Dare," "Minnehaha," "Pocahontas" and other pure, wholesome wines, and cites high authorities to prove their great food value. It is a book worth having. If your dealer will not supply you with Garrett's wines, *we will* and pay delivery charges.

We *insist* upon refunding your money if you are not satisfied, whether you buy from us or your dealer. Write to-day.

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St. Louis, Mo. ESTABLISHED 1835 San Francisco, Cal.

or rickety, then we must be somewhat guarded, as these infants are usually very feeble, and may, after recovery from the fits, die from some mild intercurrent disease. If there is reason to suspect intracranial hemorrhage, the prognosis must be extremely guarded. Uremic convulsions, while always grave, yet if recognized early, do not necessarily prove fatal. Convulsions from pertussis and asphyxia are especially fatal. But the attack at the outset of the exanthemata, pneumonia or auto-toxemia are not often grave and seldom fatal.

Having administered our emergency treatment and given ourselves ample time to make a diagnosis, with a favorable or guarded prognosis, we turn our efforts to the general treatment of the case. Our first endeavor, as has already been stated, is to control the convulsions, and the drugs mentioned are perhaps the most efficacious; having accomplished this, the colon should be thoroughly irrigated, with warm norman saline solution, by passing a soft rubber catheter well up into the bowel. If there is reason to suspect intestinal disturbance, a free purgative should be administered. If there is a high temperature, then a cold sponge should be given. Further treatment should be administered according to our diagnosis of the case.

The Association of Surgeons of the Southern Railway held its eleventh annual convention on the 24th of May, electing the following officers: President, Dr. R. S. Toombs, of Greenville, Miss.; First Vice-President, Dr. M. F. Coomes, of Louisville, Ky.; Second Vice-President, Dr. B. B. Simmes, of Talladegra, Ala.; Secretary and Treasurer, Dr. J. U. Ray, of Woodstock, Ala. The next meeting of this important body will be held at Washington.

State Medical Association of Texas.

We are glad to note that the recent meeting at Fort Worth, held April 24-26, was the largest in its thirty-eight years of existence; it is estimated that there were from 600 to 800 members present.

The papers read before the body were of exceptional merit and the entertainment was delightful; in lieu of the usual banquet, which the Texas Medical Journal calls burdensome and useless, the members, ladies and visitors, were given a barbecue, under the trees, at Handley.

A committee of five was appointed to confer with like committees from Missouri, Kansas, Indian Territory, Oklahoma, and Arkansas, looking to the organization of a South-western Medical Association.

The report of the Councillors shows a total membership of 2850.

Officers-elect: President, Dr. G. B. Foscue, Waco; Vice-Presidents, Dr. Felix Miller, El Paso, Dr. B. S. Weir, Beaumont, and Dr. A. B. Small, Waxahachie. The Secretary and Treasurer was re-elected.

The next meeting will be held at Mineral Wells the first Tuesday-Thursday in May, 1907.

Buffalo LITHIA WATER

IN ALBUMINURIA of PREGNANCY and BRIGHT'S DISEASE

Dr. Alfred L. Loomis, *Professor of Pathology and Practical Medicine in the Medical Department of the University of New York* wrote; "For the past four years I have used BUFFALO LITHA WATER in the treatment of Chronic Bright's Disease occurring in Gouty and Rheumatic-subjects ,with marked benefits."

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Dr. J. Allison Hodges, *Richmond, Va., President University College of Medicine, and Professor of Nervous and Mental Diseases:* "In Albuminuria of Pregnancy, this water is one of the very best alkaline dieuretics, and ,with milk diet, is one of my sheet anchors."

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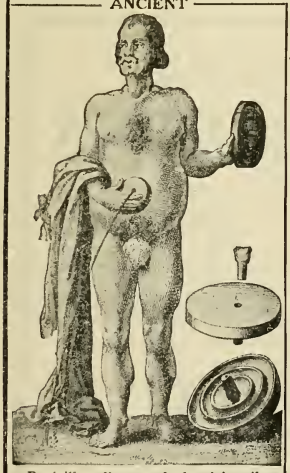

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HYPNOTIC, SEDATIVE ANODYNE DIURETIC.

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Pint Bottles, $1.50.
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Half-pound bottles only

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Each fluid drachm represents 15 grains of the combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium and Lithium

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Neurologists and General Practitioners prefer it because of its superior qualities over the commercial salts.

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One to two teaspoonfuls three times a day.

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Re-establishes portal circulation without producing congestion.
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A diminution in the number of red blood cells and a retrogade alteration in their structural integrity. Such are the morphological changes in the blood made manifest by the microscope in cases of ANÆMIA from whatever cause.

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During its administration the microscope evidences a progressive increase in the number, and a constant improvement in the structural character of the corpuscular elements. This palatable and quickly assimilable combination of **Organic Iron** and **Manganese** is a true **"blood feeder"** and **corpuscle contributor** in cases of

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It is to the medical profession that this water owes its prominence in materia medica today. Hundreds of physicians who have given it an honest trial in their practice recognize and proclaim its efficacy in all diseases where Lithia is indicated as advantageous. It is to the credit of **HARRIS LITHIA WATER** that it has no adverse critics within the profession, and that those who prescribe it have given it unstinted praise.

We do not claim to have the only valuable Lithia Water on the market, but we do claim to have a very much better Lithia Water than very many waters more widely advertised, and, furthermore, that none of the best are better than **HARRIS LITHIA. HARRIS LITHIA WATER** is no experiment—no new discovery courting the imagination of the ignorant. We appeal to your scientific opinion solely and we shall be content to rest upon the results of its use in your practice.

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whether neuralgic, membranous, congestive, inflammatory, ovarian or obstructive in character, yields readily to the pain-relieving and flow-augmenting action of

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if one to two capsules are administered three times daily before and during the menstrual period.

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when due to sudden exposure to cold, mental shock, change of climate, etc., may be promptly relieved by the administration of

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in doses of two capsules three or four times daily for a few days in advance of the visitation, then giving one capsule three times a day until menstruation has ceased.

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whatever may be the exciting cause, excessive menstruation may be controlled, and the uterus invigorated and toned by the administration of

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in doses of one capsule once daily for a few days in advance of the visitation, then increasing the dose to one capsule four times daily throughout the period.

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...the dietetic preparations designed for the sick,
...so that ordinarily a dish of food prepared for a
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..."We have long since forgotten the necessity of
...flavor in food—it is a need that holds good
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EXTRACT FROM EDITORIAL
NEW YORK MEDICAL JOURNAL
JUNE 9, 1906.

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Made only from selected California white wheat, it is steam-cooked until the starch granules burst their cellulose walls, and flaked; these flakes are then *scientifically toasted* to a crisp and delicate brown by being baked at high temperature.

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retains all of the elements of whole wheat—the carbohydrates, protein, fat and natural salts as well as a portion of the fibrous material so essential to normal peristaltic activity. It is a valuable reconstructive food for convalescents and for growing children, and should be made an essential part of a healthful diet for all healthy people.

During the hot weather a diet consisting largely of fruit, eggs, fresh vegetables and EGG-O-SEE will best supply the energy needed for both mental and physical effort. EGG-O-SEE retains all the protein of *whole wheat*—at all times a better form of protein than is furnished by red meat.

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in the early stages of the disease and the continuation of its use throughout the season.

Uric-Antagon is a purely vegetable pharmaceutical preparation. It is an efficient eliminative agent in RHEUMATISM, GOUT and SCIATICA, and many favorable reports are received of its action in

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Active principles of
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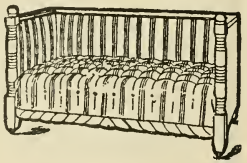

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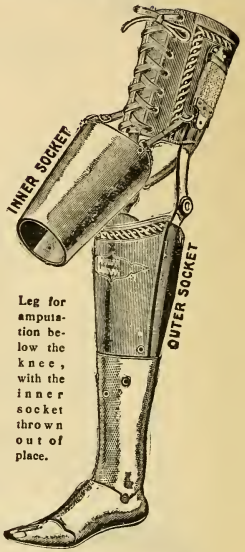
With **SPONGE RUBBER, Mexican Felt or English Willow** **FOOT.**



Leg for amputation below the knee, with the inner socket thrown out of place.

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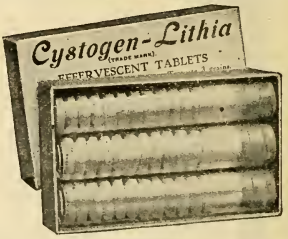

Should be dispensed in tubes to preserve effervescent quality.

An effervescent tablet of Cystogen ($C_6 H_{12} N_4$) *3 grains and Lithium Tartrate 3 grains.*

Uric acid solvent and alkaline urinary antiseptic.

DOSE—One or two tablets in a glass of water, three or four times daily.

The idea of this combination was given us by observing the large number of physicians using CYSTOGEN with LITHIA in gouty and allied affections.

Where Cystogen is indicated, Lithia is of advantage; Where Lithia is prescribed, Cystogen is indicated.

INDICATIONS—Rheumatism, gout, urinary deposits, calculus, cystitis, prostatitis and gonorrhea. A good urinary antiseptic during convalescence from typhoid and scarlet fever.

CYSTOGEN PREPARATIONS:

Cystogen—Crystalline Powder.
Cystogen—5 grain Tablets.
Cystogen-Lithia (Effervescent Tablets).
Cystogen-Aperient (Granular Effervescent Salt with Sodium Phosphate).

Samples on request.

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The Charlotte Medical Journal.

VOL. XXIX CHARLOTTE, N. C., AUGUST 1906. No. 2

Address of Welcome.

By Hon. T. C. Guthrie, Charlotte, N. C.

Mr. President and Gentlemen of the Medical Society of the State of North Carolina.

This gathering of the leading men of your noble profession is an event of importance. In the marvelous progress and development of our country, its resources and its people, the medical profession has more than kept up with the procession. The old-time saddle-bag doctor, with his lancet and his leeches, his blue pills and his blisters, has been superseded by the thoroughly educated, highly trained scientific physician of today.

Among the influences which have contributed to the advancement of your profession and its elevation from empiricism to a science your society deserves a high place. Our law-makers, recognizing that you are best fitted for these duties, have delegated to you the examination and licensing of doctors and the control of their professional behavior. The wisdom of this legislative action has been well demonstrated by its test for nearly a half century. There never has been a time in the history of our State when the standards of the profession have been so high as they are today or when the individual doctor was so well prepared and so competent. It has come to pass that a license issued by the Board of Medical Examiners, appointed by your body, is a passport to public confidence and a proof of professional efficiency.

The tendency of the present time in all branches of human endeavor is to specialize. The all-round man of all work, who can do a little of everything, is a gentleman out of a job. His place has been taken by the man who can do one thing or a few things excellently well. The medical profession is no exception to this tendency. It stands to reason that the surgeon, who has performed some particular operation or class of operations hundreds of times, has gained skill from his experience and can do better work than a doctor who has had little surgical work to do. So by a process of evolution, specialists in various branches of surgery and classes of disease are attracting to themselves particular lines of practice. The time is coming, if it has not already come, when you will all be specialists. This result may be counted a distinct gain to humanity and the doctors. There are more people to be sick and more doctors to treat them. One patient may be passed around among, and contribute of his substance to, several specialists and be cured in the satisfying knowledge that he has had the top-notch of medical science in return for his money. Thus the afflicted are better served and more doctors make a living.

When a great discovery or invention is made in machinery or mechanics that will benefit mankind the first thing the inventor goes after is a patent. By means of the monopoly created by law the inventor seeks to reap the money reward of his brain and talents. No matter of what necessity or importance to the comfort or happiness of humanity the invention or discovery may be, it is branded with the dollar mark and protected by law and tribute levied for the enjoyment of it. These things are mentioned not for the purpose of saying it is wrong for a man to get money returns for his ideas, but for the purpose of emphasizing the abounding generosity and unselfishness of the medical profession. When a doctor, by means of his study, research and labor, discovers some remedy that will cure or prevent disease, or some surgical process or instrument that will benefit humanity, he freely and gladly gives it to the world—not for his own glorification, but as a mere matter of course.

I asked a medical friend to tell me sometking to talk to you about that you would like to hear. He said "tell them how to make some money." This struck me as very practical, but it occurs to me that you do not need any such advice, even if I were qualified to give it. Our Charlotte doctors certainly do not need it, with their automobiles and other evidences of prosperity. The medical profession has discovered that the secret of making money is not to try to make money at all.

Some years ago there died in a North Carolina town a doctor "who through long days of labor and nights devoid of ease" for forty years had ministered to the sick and afflicted. It was not his lot to command "the applause of listening Senates." His tent was not spread "on fame's eternal camping ground." He lived the simple life. Rockefeller's millions did not cause him to lose any sleep. He devoted his life to his profession. He did not stop to bother about the patient's ability to pay. He only knew that some one was suffering, and he was willing to do what he could to relieve the sufferer. He never pressed anybody. Yet he had a comfortable home—drove good stock—lived well—educated his children—

*Read before the North Carolina Medical Society at Charlotte, N. C.

and left his family in comfortable circumstances. The church and church-yard would not hold the people who came to his funeral. They were his friends among whom he lived and labored and who loved him. His grave was strewn with their flowers and watered by their tears. Who would not rather live the life and die the death of this noble man, this devoted physician, than be a millionaire with a colossal fortune built up, perhaps, by greed and graft and treachery?

While this sketch refers to a personality, it is also a type of the successful North Carolina doctor of today. The all-embracing charity of the physician whose feet are guided by the grand ideals of your noble profession does not degenerate into burnt incense offered at the alter of the golden calf. Devotion to professional duty brings its rewards in money and fame, and the doctor is one man to whom both money and fame come more abundantly without being sought.

Among matters of vital interest to your society may be mentioned hospitals and medical schools. The time is very recent since any surgical operation of importance meant the worry and expense of a trip to New York, Philadelphia or Baltimore. Now it is different. Almost every important town in our State has its hospital and able surgeons. Our afflicted ones can be looked after right here at home to the mutual advantage of both themselves and the doctors.

There is no more reason why our boys should be sent out of the State to get a medical education than there is that our sick ones should be sent abroad for treatment. You are not mere theorists, but you have behind you experience and the prestige of success and achievement. There ought to be and can be built up under your auspices, and with your co-operation and support splendid medical schools where first-class instruction can be given in all branches of medical science. I am not unmindful of the work that has been done in this direction, and I am not minimizing or depreciating that. But there is a field for much larger work.

The doctors examined in our courts qualify themselves as experts by saying they are graduates of this or that celebrated Northern Medical College. I want to hear them say with becoming pride that they are graduates of this or that celebrated North Carolina Institution. Year after year our boys are going away from home spending North Carolina money to help build up big medical schools and big doctors who teach in them. We might just as well keep the boys and the money at home and build up great medical schools of our own and greater reputations for our own doctors. Thank God, North Carolina is no longer a good State to move out of, but she is a good State to stay in and to move to, and she is getting bigger and better. She is no longer chiefly noted for tar, pitch and turpentine, and for filling all the census blanks relating to raw material. We are becoming a great manufacturing State, and the wonderful progress for the past twenty-five years is not a marker to what the next twenty-five years will show. What we have done is but an earnest of what we will do. And it is not to be doubted that the doctors will do their share in this great work of developing and building up our State.

I have been selected to perform the agreeable function of bidding you welcome to Charlotte. Our city is honored in having so many distinguished members of your profession within her gates. We are glad you decided to meet here. We extend to you our heartiest welcome and hope your pleasure during your stay will be as great as ours in having you.

Response to the Address of Welcome.

By Dr. B. K Hays, Oxford, N. C.

Ladies and Gentlemen:

In the name of the medical profession of North Carolina permit me to thank you, the people of Charlotte, for the cordial reception which has been extended us here today.

It is a pleasure to visit Charlotte. It is centrally located; easy of access, and destined to become the metropolis of the State. The energy and business activity here manifest on every side is contagious, and, while we have left business care and worry behind, yet we catch the spirit of enthusiasm, and even while we rest from labor, resolve to do better and more efficient work when we return to our homes.

It is said by those who have visited Paris that there is a feeling of absolute freedom from care which comes over one as soon as he enters the city. This may be due to the splendid architecture which adorns her streets, or reverence for places fraught with historic interest. It may be her galleries of art that charm the eye, or music that lulls the ear; but more than these, it seems to me, is the presence of men and women who, while active in all the potentialities of life, have yet time to admire the beautiful, and to extend to each other and to strangers those delicate courtesies which warm the heart and bring contentment to the inner man.

It is this spirit which pervades the very atmosphere of Charlotte, and this is why the sons of the old North State delight to meet within her gates.

But we, gentlemen of the medical profession, must not forget that we have duties to perform while here assembled. We are the custodians of the health of the people of North Carolina. It is a serious thing to be a doctor; to combat disease; to assume responsibility when a man is in the very throes of death; and seriously must we discuss the problems of disease at this meeting.

While I am yet a young man—too young, perhaps, to sound a note like this—yet, as I look into your faces I perceive that many of you are still younger than myself. The grand old men whose white hairs gave dignity to this body ten years ago, and whose experience gave wisdom, are gone. From every section they came, and in every section they have fallen—not by the way—but at their journey's end. In my own county of Granville but a few weeks ago Dr. W. W. Cozart laid down his burden. Some years have passed since the scholarly Jno. W. Booth was called away, and in the neighboring county of Vance both Chatham and Tucker are gone. Each of you recall the name of some man in your county who, ten years ago, was laboring as you and I labor, but who will be seen at this society no more.

"For them no more the blazing hearth shall burn,
Or busy housewife ply her evening care;
No children run to lisp their sire's return,
Nor climb his knee the envied kiss to share."

And yet we cannot say that these men are dead. Is Martin Sims dead? Is Hunter McGuire dead? Is O'Hagan dead? In the language of another let me ask, "Is any man who was ever fit to live dead? No. The influence of these men will echo down the corridors of time, and when your bodies and mine have returned to dust the good which they did while in the flesh will still have influence among the sons of men.

In the name of our fathers let us here resolve to dedicate ourselves to their unfinished labors, and determine that through the influence of their example the family physician may continue to be a blessing wherever his influence is felt.

Puerperal Eclampsia.*

By M. R. Adams, M. D., Statesville, N. C.

The term eclampsia is applied to convulsions tonic and clonic in character, which may occur in the pregnant, parturient or puerperal woman, during which there is a loss of consciousness, followed by coma.

Clinical History—As a rule eclampsia does not occur very often, probably one time in three hundred, and the disease usually occurs during the second half of pregnancy, but cases are on record as occurring as early as the fifth month of pregnancy. A large per cent. of all the cases that have come under my observation occur in primiparous women, and it is stated that it is much more frequent in twin than in single pregnancies, though I am not able to corroborate this statement. Sometimes the convulsions come on without any premonition whatever in women that are in apparently good health, but in a large majority of the cases that I have observed the attack is preceded by well defined premonitory symptoms, indicative of the toxaemia incident to pregnancy, among the more prominent being headache, disturbance of vision, epigastric pain, restlessness, and often more or less edema, with a diminished quantity of urine.

When the attack comes on among the first symptoms observed is a fixed expression of the eyes, which soon commence to roll from side to side, the mouth begins to twitch and is in some cases drawn to one side, the face becomes distorted and then the entire body becomes more or less involved.

The patient often foams at the mouth, bites her tongue, the breathing is labored and stertorous and the face congested. The convulsions may last from a few seconds to two or three minutes, the patient being unconscious and then passing into a profound coma.

I have seen one convulsion occur during the latter part of labor and recovery ensue without any recurrence of convulsions, but oftener the first is but a forerunner of other convulsions, which may vary from one to fifty or more in fatal cases. When the convulsions do not occur often the woman usually recovers consciousness after each attack, while in some cases the coma persists from one attack to another, and death may occur without awakening from it.

Death in rare instances occurs after one convulsion, though as a rule death does not occur until after several attacks. In a small number of cases I have seen the temperature run very high, and it is always considered a dangerous omen. There is some discrepancy of opinion among authors as to the cause of the high temperature, some claim that the poison that gives rise to the eclampsia also stimulates the thermal centers, while others claim that the fever is of an infectious origin.

As the eclampsia first appears, before or during labor or soon after delivery, it is designated, ante-partum, intra-partum and post-partum eclampsia, the last, or post-partum, is the least common, only two cases having occurred in my practice. When ante-partum eclampsia occurs labor usually

*Read before the recent meeting of the N. C. Medical Society at Charlotte, N. C.

sets in and a premature child is born spontaneously or the womb is emptied by operative measures.

In a small number of cases labor does not supervene, and if the woman survives the attack she may give birth to a dead foetus, and occasionally the patient may recover from the attack and give birth to a living child at term.

In post-partum eclampsia all the cases that have come under my observation with one exception, there was but one convulsion. I have observed in a small number of cases a jaundiced condition soon after the convulsive seizure. This symptom is of rather grave prognostic significance and indicates hepatic lesions.

During the eclamptic attack the urine is diminished in quantity, while occasionally the secretion is suppressed and a chemical analysis nearly always reveals the presence of albumen. In a large majority of cases the urine rapidly becomes normal and in a short time gives no evidence of the previous pathological condition.

Pathology—I am candid to admit I know very little about the pathology of eclampsia, and it is not the purpose of this brief and imperfect paper to enter the maize of theories about the pathology of this disease.

After the presence of albumen in the urine of women suffering with this disorder, it was generally believed that the diseased condition was of nephritic origin and to be dentical with uraemia, when it was found hat a small proportion of the women suffering with chronic nephritis this view was gradually abandoned.

In looking over the different authorities on the subject, the evidence at hand would seem to indicate that the renal changes, while frequently present are not as a rule sufficiently marked to justify one in considering them as the characteristic lesion of eclampsia, which must, therefore, be looked for some other organ.

Some French observers believe that the hepatic changes are so characteristic and constant that the primary lesion of the disease is due to the impairment of the hepatic function, while others have made statements concerning the pathalogical findings of the brain, edema, thrombosis, apoplexy being described as the main lesions; it is, therefore, apparent that the main lesions in eclampsia are found in the kidneys, liver and brain, but in view of the marked discrepancy in the statements of the various authors concerning their relative frequency and importance, it would seem that the anatomical changes are not constant, although those of the liver are probably the most characteristic.

Etiology—A number of theories have been advanced as to the cause of eclampsia, but as yet the exact nature of the poison is not known. Certain conditions are known to predispose toward developing the malady such as renal insufficiency, imperfect function of the bowels, skin, and multiple pregnancy.

The generally accepted theory is that the disease is due to the circulation of some toxic agent in the blood; as to the exact nature of the offending substance we are yet ignorant.

In concluding my remarks on the etiology of this disease I desire to quote an American author, who says: "It appears that the evidence thus far adduced by the various authors in favor of the auto-infectious theory, though not conclusive, is sufficiently suggestive to warrant its tentative acceptance, at least until some better explanation is produced."

Diagnosis—There is usually not much difficulty in arriving at a correct diagnosis, if the woman has been under observation during the latter months of pregnancy.

It becomes necessary to differentiate between epilepsy, uraemia and hysterical convulsions.

Prognosis—The mortality of eclampsia depends in a large measure on the promptness and thoroughness of the treatment instituted. It is considered one of the most dangerous conditions the obstetrician has to deal with. The mortality varies under different circumstances, the maternal mortality is about 30 per cent. and that of the foetus much larger.

My experience is the prognosis is more unfavorable when the convulsions come on before or during labor, whereas the post-partum eclampsia is less dangerous.

There is considerable discrepancy of opinion concerning the relative prognosis of primiparous and multiparous women. In all probability the prognosis depends more on the severity of the attack than upon the number of children the woman has borne. When coma comes on after each seizure and the convulsions follow in rapid succession the prognosis is more unfavorable, a weak, rapid pulse with a high temperature indicates an unfavorable termination, whereas a full and firm pulse with low temperature indicates a favorable prognosis.

Treatment—The prophylactic treatment is always important. There is often renal inadequacy, and it is important to make frequent examinations of the urine during the latter months of pregnancy and note the quantity passed daily.

Adopt a suitable line of diet such as milk, fruit, bread and poultry, avoiding the heavier and less digestible meats, tea, coffee, and all stimulants should be strictly for-

bidden. Always keep liver, kidneys, and skin in an active condition. When convulsions come on chloroform is by far the most prompt and valuable agent we possess. Chloral hydrate, the bromides, opium and morphine hypodermically in large doses are all valuable remedies. Veratrum viride I have used with gratifying results. When used judiciously it is an agent of great power and usefulness.

As to the treatment of toxaemia, secure prompt and vigorous elimination by catharsis, diuresis and diaphoresis.

In my opinion croton oil and calomel stand first in the line of cathartics; salts, jalap, and other remedies of the same class are used.

To arouse the action of the skin, apply blankets wrung out of hot water to the body and then put a dry cover or blanket over the entire body of the patient.

The kidneys are stimulated by giving liberal quantities of water, if patient can swallow.

The normal saline solution by giving it under the skin or into the bowels.

Venesection should be classed among the eliminative measures, though at present I believe it is somewhat in disfavor. I have time and again used it with very decided benefit, more especially in large plethoric women.

The average woman possesses approximately eight pounds of blood, and about one-eighth of its total bulk can be drawn off and replaced by salt solution, thus in a measure diluting the poison and thereby aiding nature.

If the convulsions once occur the pregnancy or labor, as the case may be, should be terminated as soon as consistent with the safety of the patient.

Some advocate the administration of morphine in large doses and not interfering until the cervix is completely dilated and then employing forceps or version, while on the other hand some advocate the idea of emptying the uterus at an earlier period if it can be done without injury to the mother. After one convulsion I am always uneasy as to my patient's safety until the womb is emptied.

During the earlier period of my professional career I was inclined to the opinion that palliative, rather than active treatment, was the most judicious course to pursue, but my views have changed, and now my opinion and experience is that prompt delivery is indicated whenever it can be accomplished in a conservative manner, and I believe the statistics confirm this opinion. In looking over some recent statistics bearing on this point it is stated that there is a cessation of seizures immediately or soon after delivery, the report showing a mortality of 28 per cent. under expectant, and 11 per cent. under active treatment.

To Summarize—First. That the exact nature of the pathology and etiology of this disease is yet unknown. We believe that there is a toxic agent circulating in the blood which needs to be eliminated.

Second. That chloroform, chloral, hydrate, the bromides, opium, veratrum, viride are remedies which have been extolled from time to time as useful in this disease, and they are simply remedies which will hold the seizures in abeyance until elimination can be accomplished.

Third. By elimination I mean catharsis, diuresis, diaphoresis, and emptying the womb.

An Imperforate and Obstructive Hymen at Full Term.*

By H. S. Lott, M. D., Winston-Salem, N. C.

This case was seen at the request of my friend, Dr. A. Y. Linville, of Waughtown. The patient was about twenty-four years of age, and reported that her menstrual periods, prior to conception, had been regular and without unusual symptoms. Her pregnancy was now at about full term, this being the first one occurring in three years of married life.

Labor pains had set in during the previous night, and at the time of my visit, about 10 o'clock in the morning, were recurring at regular intervals. The phenomena characteristic of the onset of labor were well marked; the recurrent pains, of an expulsive character, and some nausea, indicating dilatation of the os. The point of most interest in watching the woman have her pains, was that they seemed to be futile in their efforts.

Upon making an examination the fingers could only be introduced into the vagina to about one-half their length. Here they were met by an obstructive wall, the cushioned feeling of which indicated it to be of considerable thickness. Rotating the fingers over the entire surface of this wall of membrane, and around the walls of the vagina in every direction, no cleft of possible inlet could be found; in fact, none existed. The sensation was a most discouraging one, as the symptoms warranted the finding of a dilating os. Biding my time, even at the risk of incurring the displeasure of the patient, who failed to realize her interesting condition, the fingers, having become somewhat accustomed to their surroundings, made a second, and very deliberate exploration of this blind pouch, with its obstructive wall; and after feeling almost discouraged

*Read before the North Carolina Medical Society at Charlotte.

again, it seemed to me that through its substance, and at an equal distance from the top, the bottom, and the sides, could be felt a circle, about like that of a small sized teething ring. While this sensation was cushioned and obscure, it was almost unmistakable, and, when upon firm pressure at the most central point, a hard, round body could be distinguished, the case assumed to me a much more promising aspect.

Believing it to have been originally either a cribriform hymen, or one with a very small cleft below, at the posterior wall of the vagina, and that this opening had been closed by some vaginal inflammation subsequent to conception, I advised that it be incised, thus converting the vagina into a normal one, and permitting labor to take its course.

Therefore, with the patient under chloroform, the hymen, which was found to be about the thickness of the little finger, was divided from side to side of the vagina; the incision being made in this direction in order to avoid important structures, urethra in front, and bowel wall behind; and also to invite any unavoidable tear which might occur in the process of delivery, in this lateral direction, rather than *into* these structures. As soon as the incision was made, the child's head could be plainly felt, coming down; and the encircling fibres of the os beginning to yield; which indicated very plainly that the constriction caused by the hymen about the cervix had been obstructive to labor as well.

By blunt stretching with the fingers the incision was enlarged, and the hymen obliterated as nearly as was consistent with the safety of the surrounding structures. No further interference was necessary, as from this time labor progressed normally, and promptly; and in about four hours I received a message that labor had been accomplished. The doctor reported that there was some injury to the perinaeum and posterior wall, but as it was not extreme in degree, and because of the cicatrical character of the tissues involved, I advised against its repair; rather deeming the enlargement of the outlet from this one favorable to the accomplishment of future confinements.

Obstructions to the Upper Respiratory Tract.*

By H. H. Briggs, M. D., Asheville, N. C.

The functions of the nose and nasopharynx are to filter, moisten and modify the temperature of the inspired air. The air of the frozen north and of the torrid desert is tempered by the same mucous membrane to nearly the body temperature. It is important that this change of temperature take place in the upper respiratory tract rather than in the bronchi and air vesicles, which latter necessarily occurs when there is nasal or naso-pharyngeal obstruction, with the resulting mouth-breathing.

The vibrissae at the vestibule act as a filter, removing from the air particles of dust and bacteria, and the greater number of foreign substances which pass these sentinels are caught on the undulatory surface of the moist Schneiderian membrane, against which the whirling current of air carries them. In mouth-breathing this sifting and filtering process is but feebly carried on, and the sputa of such unfortunates are daily impregnated with black deposits of foreign matter.

About sixteen ounces of fluid is secreted from the nasal mucous membrane in twenty-four hours, and utilized in respiration. Saturating the inspired air with this aqueous vapor is not so much a necessary preparation of the air for osmotic purposes, per se, as perhaps an economic factor; for the increased temperature which necessarily results renders the inspired air more hygroscopic, and the saturation which is not effected in the upper respiratory tract is furnished in the lower respiratory tract, which is poorly supplied with secretory glands. This accounts for the dry catarrhal condition of the trachea and bronchi of mouth-breathers.

Aside from the foregoing effect upon the physical properties of the inspired air there is another, and perhaps more important, and one which has never, so far as I know, been thoroughly investigated, viz., the change in the atmospheric pressure of the inspired and expired air in those who with difficulty breathe through a stenosed upper respiratory tract. This stenosed nasal breathing occurs in most cases of obstruction unless of too great degree. Children, as a rule, practice mouth-breathing with an amount of obstruction with which an adult would attempt nasal breathing, or at least alternate between the two. This is due to the fact that the latter keeps the secretions which accompany most obstructions cleared away, while the former do not, and the mucous augments the obstruction.

There is normally a slight variation of the air pressure on inhalation and exhalation, in the lower respiratory tract, due to the resistance of the air passages and to the narrowness of the same, through which the tidal air must pass in so short an interval of time. This amounts to about 1 m.m. of Hg. negative pressure, on inhalation, and about twice as much positive pressure on exhalation; the difference due principally

*Read before the North Carolina Medical Society at Charlotte.

to the elasticity of the lung aiding the expiration. Aron found in a case of tracheal fistula, a negative pressure of two to six mm, and from 0.7 to 7 mm of positive pressure. If forced respiration be practiced with the mouth and one nostril closed, the negative pressure may be as great as from 36 to 74 mm, and as much as 82 to 100 mm. positive pressure. In nasal and naso-pharyngeal stenosis from hypertrophies, deflections, spurs, adenoid growths and tonsillar enlargements, nasal breathing is carried on by a special effort, resulting in varying degrees of pressure, positive and negative, on exhalation and inhalation respectively, in proportion to the extent of the stenosis and to the respiratory effort produced. The atmospheric pressure within the bronchi varies, instead of 3 mm. as in normal breathing through a normal tract, anywhere from 3 mm. up to 144 mm., owing to the respiratory effort. This great difference in pressure in the alveoli and air cells, producing, as it were, pressure or suction alternately on the delicate endothelial lining and capillaries, seems sufficient to effect pathological changes which might interfere with the normal exchange of gases. Ballenger, in '96, confined guinea pigs in an atmosphere laden with AgN03 and starch, and found in a short time that the endothelial lining of the air cells had increased from one to five or seven layers, caused no doubt by the alternate increase and diminution of the pneumatic pressure within the cell, resulting from the nasal stenosis induced by the starch. May it not be possible that there is an hypertrophy of the lining membrane of air cells in subjects affected by stenosis of the nose or naso-pharynx, modifying the osmosis, and hindering the elimination of carbon dioxide? The above seems the more tenable if we consider the hypertrophic changes in the eustachian tube and middle ear, resulting from nasal and naso-pharyngeal obstruction.

Another evil result of upper respiratory obstruction is that there is an insufficient amount of air respired. It may be argued that if the patient can not get enough air through the nostrils he will resort to mouth-breathing, which he will, substituting one evil for another, but as above stated, the adult especially, breathes through the nose when possible, even if he must occasionally augment the latter with a long breath through the mouth. Normal respiration must take place at certain intervals and any decided increase in the number of respirations per minute, or of the respiratory effort, entails fatigue. In case of obstruction the subject must increase either the rate of respiration or the effort, or both; or receive a limited quantity of air. The compromise is usually at the expense of the oxygen, which is as important to the economy as is food.

The effect of nasal stenosis, adenoids and tonsillar enlargement on the middle ear and eustachian tube is often overlooked. Seventy per cent. of aural diseases are due to pathological conditions in the nose and naso-pharynx, and in my opinion, seventy-five per cent. of these result directly from obstructions. An eminent aurist has said that if the rhinologists would do their duty and attend to the nose and naso-pharynx of the children of today, the aurists would have nothing to do in the next generation.

It is due to an hypertrophied turbinate, a deflected septum, or adenoids, that infected mucous lying in the naso-pharynx is blown into the middle ear or perhaps into the mastoid antrum, by an attempt to blow the nose. The indiscriminate use of the Politzer bag in patients having a muco-purulent discharge from adenoids is the cause of many cases of middle ear and mastoid infection. In a similar way the other accessory sinuses frequently become empyemic. It is impossible to perceptibly improve the hearing in cases of catarrhal deafness until the nose and naso-pharynx are rendered perfectly patent. This alone constitutes the greater part of the effective treatment.

In children post-nasal adenoids are the most common cause of obstruction in the upper respiratory tract. There is no benign pathological growth more dangerous to the patient than this. Next in order of relative danger are the tonsils, and lastly, in adults, the nasal obstructions.

The vacant stare, listlessness, nervousness, open mouth, nasal voice and pigeon chest combine in a characteristic clinical picture familiar to all. That this condition usually accompanies the backward child in our public schools, the feeble-minded and the idiot, can not be denied, and it is a foregone conclusion that these obstructive growths, by pressure and accompanying secretions, are often a cause of auto-intoxication. Schwalbe and Retzius were able to inject the lymphatics of the nasal mucous membrane through the arachnoid space. An intimate relationship exists between the venous spaces of the nose and the interior of the skull. General toxaemia often follows the cauterization of the nasal mucous membrane. Diphtheria, tonsillitis and scarlet fever afford excellent opportunities of observing the rapid toxicity to the general system through the lymphatics of these parts. Chronic cervical adenitis often complicates adenoids and enlarged tonsils. The defective drainage of the nose, naso and oro-pharynx, and pressure causing swelling and stasis in the venous and lymphatic channels, with the consequent large

percentage of carbonic oxide in the blood and the products of auto-intoxication are amply sufficient to affect the brain functions.

At one time it was the custom in Providence, R. I., to place the backward children of the city in a special school. On examination of these children, 70 per cent. had either obstruction to the upper respiratory tract or error of refraction, and the majority of these were able to return to the regular schools after treatment.

Enlargement of tonsils and adenoids—in fact of the lymphoid tissue forming the tonsillar ring—affords a pathological condition which offers an easy entrance for infection. It is probable that the specific germs of several diseases, notably acute rheumatism, scarlet fever, diphtheria and tuberculosis gain entrance through these tissues. Tubercle bacilli are often found in tonsils where no tuberculosis can be found elsewhere in the body. Dieulafoy inoculated 60 guinea pigs with tonsillar tissue, and 13 per cent. died of tuberculosis, and of 35 inoculated with adenoid tissue 20 per cent. died of the same. No tuberculosis was found in any of those from whom the tissue was taken. These results were confirmed by Lermoyez, Brindle and Gottstein, and lead to the inference that these tissues, enlarged, are often the port of entry of the tubercle bacillus.

In the treatment of pulmonary tuberculosis and other wasting diseases, where oxygenation of the blood and elimination of products of decomposition are of prime importance, the first and essential consideration is an upper respiratory tract ample in patency and free from obstructions and catarrhal secretions.

73 Haywood St.

Test Diet in Intestinal Diseases.*

By Dr. W. O. Nisbit, Charlotte, N. C.

Internal medicine of today is concerned largely with the functional diagnosis of disease. Functional diagnostic methods as applied to disease of the stomach have been reduced to a practical working basis within the past decade. In evolving these methods a definite rule has been followed of first finding the variations in function of the normal stomach under a selected test; having once discovered the normal we have a guage by which to measure the pathological. Applying these methods the pathological variations in the three chief functions of the stomach, namely, secretion, absorption, and motility in their various refinements have been worked out.

*Read before the N. C. Medical Society at Charlotte, N. C.

Functional Diagnosis of Intestinal Diseases.

Functional methods as applied to diseases of the intestines have not kept pace with similar methods applied to diseases of the stomach. In fact, only within the past five years have we seen an occasional allusion in medical literature to an intestinal test diet. Recently there have been published by several observers the results of investigations in this field, and the foundation has been laid upon which may be reared a finished structure. These observers seeing the value of the test meal in examining the stomach function it was reasoned that a test diet should be established for the study of the functions of the intestines. This test diet was first given to a series of healthy subjects, and their stools examined chemically, microscopically and macroscopically; thereby establishing a standard. Later the diet was exhibited to a series of individuals with intestinal derangement, and the pathological variations in feces noted. It may be well to state that at first a chemical estimate was made of the fats, carbohydrates and the nitrogen output in the feces. This course was found impractical, owing to the great amount of time required to make the analysis. Adolf Schmidt and Strassberger, who were the leading investigators, and others abandoned this chemic method, and after much labor have given out the plan of examination of the feces of which it is the purpose of this paper to speak. In taking up the work it was agreed by these observers that a suitable diet should fulfill the following requirements:

1. The test diet must be so selected that it should be taken by healthy persons as well as by those suffering with intestinal disorders.

2. That the diet must be largely free from waste matter, but still contain enough to give the stimulus of ordinary food.

3. That the diet must be capable of supplying the minimum, at least, of nutrition (in calories) required by the body at rest.

4. That the diet must contain the three groups of food stuffs in proportionate relation to each other.

5. That the diet must be of simple composition, easily made and uniformly prepared.

Schmidt's Intestinal Test Diet.

The diet as given by Schmidt in each twenty-four hours is as follows:

In the a. m. 0.5 litre (01) of raw milk and 50 grms. (2 oz.) of Zweiback bread (ordinary bread will suffice). If milk will not agree give instead 0.5 litre (01) of cocoa, made from 20 grms. (5 drams) of cocoa powder, 10 grms. (2½ drams) milk

sugar; 400 grms. (12 oz.) of water and 100 grms. (3 oz.) of milk.

In forenoon. 0.5 litre (1 pint) of oat meal gruel, made from 40 grms. (1 oz) of oat meal, 10 grms. (2½ drams) of butter; 200 grms. (6½ oz.) milk; 300 grms. (10 oz.) water; 1 egg. Strain oat meal before using.

At noon. 125 grms. (4 oz.) chopped beef (raw weight), broiled rare with 20 grms. (5 drams) butter, so that interior will remain raw; to this add 250 grms. (½ pint) of potato broth, made from 190 grams. (6 oz.) of mashed potatoes, 100 grms. (3 oz.) of milk with 15 grms. (6 drams) of butter.

In p. m., as in morning.

In evening, same as in forenoon.

This diet thus consists for the twenty-four hours of:

3 pints of milk, 3 oz. of bread, 2 eggs, 2 oz. of butter, 4 oz. of beef, 6 oz. of potato, and 2 pints of oat meal gruel.

This test is generally given for three days, sometimes longer; and at any rate until stool is obtained, which comes with certainty from the diet. With normal evacuation power this occurs with the second defecation after beginning the diet.

The patient, as a rule, does not need to take a special powder in order to mark off the test diet stool from that of the former diet, for the test diet excrement can generally be recognized at once by its uniform consistency and its light color. When it is desired to mark off the beginning and ending of the test diet feces, administer at the beginning and ending of the test diet a wafer or capsule of 5 grains powdered carmine, which passes the canal unchanged and gives its characteristic red color to the corresponding feces. It is not claimed that this represents the only conceivable or only possible form of diet for functional examination of the intestines, but it is maintained that it has proven the most applicable one in the hands of these observers.

Objections.

Some make the criticism that this diet is too difficult of preparation to be carried out except in hospital practice. It is answered that practically such is not the case, as patients generally appreciate a carefully ordered diet. Some criticise that it contains too much milk. In reply we would say that only one pint of raw milk is given, and that the remaining two parts are given in combination with the food. Better diets may follow, still this is the most adaptable one thus far.

The Examination of the Test Diet Feces.

The next question in mind is how to proceed with the examination of the feces. It is claimed by the originators of this test diet plan that the proper examination of the feces, excepting the sublimate and fermentation tests, can be done in 10 minutes; my experience is that it takes at least 30 minutes. In preparation for examination the feces are first thoroughly stirred with a wooden spatula and a small amount about the size of a walnut is placed in a glass mortar. In this it is ground up as fine as possible, with the addition at first of a few c.c., and gradually more distilled water (until it is of fluid consistency). The grinding up must be done carefully, so that no cohering excrement particles remain. The ground-up specimen of feces is then spread over a flat-black plate or a large glass vessel in as thin a layer as possible, and account is taken of all the elements that are recognizable by the naked eye. This method of grinding up it is claimed is the only correct and suitable one, and is to be preferred to the Boas method of washing it through seives; this latter method is only of value when searching for gall stones and parasites. On inspection the normal stool when spread out as detailed above should be smooth and show only a few brown points, which are the remains of the oat meal husks. Pathologically we will find mucous in large and small flakes, remains of connective tissue and tendons from the chopped meat eaten, remains also of muscular tissue, potato remains and large crystals of ammonio magnesium phosphate.

Microscopical Examination.

This serves for the most part to complete the examination by the naked eye, three preparations are made on a glass slide of the feces as originally stirred up—if it is too hard a little water is added; we next place a small portion respectively on either end and the middle of a slide. Without adding anything to it the first portion is crushed into a very fine layer with the cover glass. The second is stirred with a small drop of a 30 per cent. solution of acetic acid and heated for a moment over the flames (until it begins to boil) and then covered with the cover glass. The third slide is rubbed up with a small drop of strong solution of Iodo Potassium Iodide (I 1. K. 1, 2, H20 50). Normal feces examined in this way under the microscope will in the first specimen show a smooth detritus consisting of the smallest granules, globules, bacteria, isolated fragments of muscle fibre, isolated potato cells, remains of oat meal gruel.

In the second, or acetic acid preparation, which serves to melt all fat remains temporarily and thus to furnish a view of the entire fat contents, there is seen after cooling small flakes of fatty acid scattered over the entire preparation. If the preparation is again carefully heated over the flames and placed under microscope while still hot

the small flakes of fatty acid are melted into drops, which congeal again as the preparation cools. Pathologically we will find in the unstained preparation fragments of muscle fibre in larger number of good state of preparation, needles of fatty acids, and soaps and numerous groups of potato cells, and may be parasite eggs. In the acetic acid preparation pathologically we find massive fatty acid flakes. In the Iodine preparation blue colored remains of starch granules from the potato cells, blue or violet fungus spores and thread like bacilli. Yeast cells which are colored by the iodine.

Chemical Examination of Test Diet Stools.

In the chemical examination we need only consider the reaction test, sublimate test, and fermentation test.

Reaction Test.

For this only a strip of red and blue litmus is placed on (not in) the fecal matter, which has been ground up with distilled water. Normally the reaction is netral, or at least feebly acid or feebly alkaline.

Sublimate Test.

This test consists in placing some of the prepared feces in a glass filled with concentrated watery solution of HGC.2, stirring it and letting it stand until next day. The normal feces is colored red by this (Hydrobilrubin) and the more intensely red the fresher the stool. Particles colored green even if microscopically small are pathological and show the presence of unchanged bile pigment (Bilirubin).

The Fermentation Test.

This test has been very essentially simplified as compared with the old fermentation test. For this from the first feces, which has been stirred up, a small amout about the size of a small walnut is taken with one of the wooden spatulas and put in the lower vessel of Strasburger's fermentation tube. In hard stools less is taken; in soft stools, more; in liquid, the lower vessel is filled entirely. In this vessel the feces are stirred up with water and the rubber stopper is put on, care being taken to exclude air bubbles. The rubber stopper is taken from the tube "b" and the tube filled with water; this tube is then closed by putting on the stopper with the vessels connected with it—a (filled) c (empty); c has an opening on top and acts as an ascension pipe (steigrohr). Note is taken of how far the connecting tubes enter into the lumen of these vessels. When the apparatus is put together it is placed for twenty-four hours in an incubator heated to 37 degrees C. If gas is developed from specimen within this time this collects within tube "a", and a corresponding amount of water is forced into the ascension tube "c". The height of the water in the ascension tube is noted, the vessel "a" is opened and the reaction of it is tested with litmus paper and compared with the reaction before the test was instituted.

Normally only a very little gas is formed in the incubator test and the original litmus reaction of the feces undergoes no important change. If gas is developed to such an amount that one-third or more of the ascension pipe is filled with water then pathological conditions are involved, and, if at the same time, the reaction has become more distinctly acid carbohydrate fermentation (the positive result of fermentation test) has occurred; if it has become distinctly more alkaline albumen putrefaction has occurred. Albumen putrefaction gives putrefactive odor. Carbohydrate fermentation gives Butyric acid or rancid butter odor.

Report of a Case Trephined for Epilepsy.*

By W. A. Graham, M. D., Durham, N. C.

Inasmuch as epilepsy in its various forms offers so little hope of permanent improvement, except in those cases which are amenable to surgical treatment, and, even traumatic cases are often disappointing in their post-operative history, I wish to report the following case:

J. P., colored, forty years old. Father died at seventy of "old age," mother is living, no brothers or sisters. Has been strong and healthy with no serious illness except malarial fever fifteen years ago. No syphilis, gonorrhoea fifteen years ago. In June, 1900, was struck with 3x3 scantling on left side of head, followed by unconsciousness and stupor for a period of four weeks, no fracture being discovered at the time of injury. When he recovered, he found a depression on line one inch above ear, beginning two inches behind ear and running back two inches, being about one inch wide. He went to work two months after injury, and three and one-half months after injury had a convulsion. Second convulsion two months later. The frequency increased during the next eighteen months, convulsions occurring as often as once in two weeks when I first saw him in May, 1902. The convulsion began by twitching in the right eye; he "would see a moon-shaped light;" right hand became numb, jerked and twitched, gradually extending up the arm and over the whole body, patient becoming unconscious, whole onset often taking ten to fifteen minutes and unconsciousness lasting from one to seven hours.

In June, 1902, the skull was trephined in center of depressed area, remainder being removed with Rongeur forceps. Dura was

*Read before the recent meeting of the North Carolina Medical Society at Charlotte, N. C.

non-adherent; was opened and brain inspected; no abnormal appearance present. Dura was stitched and skin closed with catgut drain. Patient made a good recovery and in the four years since operation has had three convulsions, December, 1902, June, 1903, December, 1904; none in eighteen months. He is at present well enough to work regularly; has gradually lost sexual power and desire; complains of slight fullness of head. There is evidently some adhesion between the scalp and dura, which may account for the full feeling.

Epilepsy following cranial injury arises from scars in soft coverings, a peripheral nerve being the starting point, from injuries of bone or dura, and actual brain injuries. Apparently the cause was due to bone depression with little cortical change and his recovery to the removal of the depressed bone before the permanent establishment of the epileptic habit. Although four years have lapsed since operation, it is not certain that he is cured, but at least there has been a great improvement. The loss of sexual power is probably not due to the brain injury but to previous abuse.

The Present Status of the Treatment of Cancer--with Report of Cases.*

By Dr. L. B McBrayer, Asheville, N. C., First Vice-President North Carolina State Medical Society; Surgeon to the Mission Hospital, Asheville. N. C.; Ex-President Buncombe County Medical Society; Member American Medical Association; Mississippi Valley Association; American Electro-Therapeutic Association; Ex-President Board of Pension Examining Surgeons; Ex-Member of Board of Health City of Asheville, etc., etc.

This paper is intended to be intensely practical, and the writer hopes to be of help to the general practitioner, as well as the specialist, and thereby benefit the people. If we succeed we shall feel amply repaid for the time spent in its preparation. Hence there will be no place for theorizing, neither will we draw fine distinctions as to kind, but use the term cancer in its broadest sense.

The present status of the treatment of cancer resolves itself into Prophylaxis, Ablation by Surgical Procedure, by plasters, and treatment by light; or a combination of two of these.

Prophylaxis.

Ever since we first became interested in the study of cancer, it has been a matter of great surprise to us that this matter of prophylaxis should be entirely ignored by writers both in journal and text-book. Laceration of the cervix is a very frequent cause of cancer in this organ, in fact, cancer of the cervix or body of the uterus is so rare in the virgin uterus that it is claimed by many that it does not occur. So far as my experience goes it agrees fully with this statement. Such being the case, if laceration of the cervix produces no other disease except cancer, which is not the case by any manner of means, it is the duty of every physician to see to it that every woman under his care, having a lacerated cervix, has it repaired. In fact, I believe it to be good routine practice to examine the cervix of every parturient patient at the end of two months, and if any lacerations are found have them repaired.

The tendency for all tumors of the breast to become malignant has become such an accepted fact that I need hardly refer to it, and will only say that any tumor of the breast, however small, should be removed as soon as discovered. I have only seen one benign tumor of the breast, and am not sure that it would have remained so, had it not been removed. Patients having moles, naevi, birthmarks, etc., should be warned that these are often the starting point for cancer, and if they show any sign of growth or irritation, should be removed, preferably by electrolysis. The people should be educated out of the idea that the removal of these blemishes may start cancer, and be educated up to the truth of the fact that the opposite is true, if let alone they frequently cause cancer, and if removed never do. This prophylactic treatment must be looked after and insisted upon by the general practitioner, and it is high time that we were waking up to a sense of our duty along this line.

Figure 1.

Was a carcinoma of the right breast. Treatment was begun five years after the tumor first appeared. Breast was entirely destroyed. Any other treatment than by the X-ray was not to be thought of.

Early Diagnosis.

I want to here and now make the statement that *all cases of cancer can be cured.*

*Read before the North Carolina Medical Society, Charlotte, N. C.

This statement is based, however, on an early diagnosis and prompt and proper treatment. I repeat, it will bear repeating many times, all cases of cancer if diagnosed early and treated promptly can be cured. If you find a patient with a tumor of the breast, call it a cancer and remove it, or have it done, I mean remove the tumor not the breast—and 99 times out of 100 you will be correct in your diagnosis, and the same number of times you will save a human life. If you find a woman who has passed the menopause, who has passed blood from the uterus, be it ever so small, you have a case of cancer, and the time to do a hysterectomy is inside of 24 hours. All your patients will get well with this treatment; all of them will die if you temporize and wait. If you have a patient past the menopause with a foul-smelling leucorrhoea, do not wait for the microscope, you do not need it, take out the uterus and save your patient's life. I had a patient from Tennessee referred to me for cancer of the uterus that had been seen six months previous by a physician and at that time had a pretty severe hemorrhage from the uterus. If he suspected cancer he never gave the patient any intimation of it. She rightly fell into another doctor's hands and was referred by him. The case was entirely beyond the pale of surgery. She has since died. I had another physician send me a patient with cancer of the cervix for operation, after he had been treating her with glycerine tampons for six months. At the time I saw her she had the cachexia. I summed up her chances as best I could, she wisely took the only chance she had, that of operation, and I think she would have recovered had she not been attacked with hiccough on the 5th day, which ended her life on the 12th day. But her power of resistance had been greatly lessened by the delay, and had she recovered the chances of return were very much greater than if operation had been done several months earlier. Two weeks ago I had a case of cancer of the uterus referred to me for hysterectomy. The doctor had been treating the case for three months, and at this time there were numerous inguinal glands infected. She also had the cancerous cachexia and had lost considerable flesh. The chances for an operation to cure her were practically nil; and when told of her condition as plainly and truthfully as I knew how, she decided to go home and die. We had a case referred by a physician, who, when consulted by the patient about the condition, assured the patient that he had no cause for alarm, and that if the cancer began to eat to come to him and he would cure it, and that it was impracticable to treat his case with the X-ray, as it would ruin his eyes. The patient was persistent, however, and the doctor later referred him to us. In these cases the doctor is guilty of gross criminal negligence, and I only mention them to impress upon you the importance of an early diagnosis and prompt treatment in all cases of cancer.

One year ago we had a patient consult us in regard to superficial cancer of the nose. We advised him that it could be cured and named a fee that he was amply able to pay. He decided, however, to rely on nostrums of more or less value, advertised by quacks and applied without any scientific knowledge. Last week two men helped him into our office, with his nose and right eye entirely destroyed, and he offered to pay us every dollar he had in this world if we would cure him. We advised him to go home, give his money to his family, make his peace with his God and die. He acted on our advice in the first and last items, to-wit: to go home and die, whether he did on the other items we are not informed. This leads me to say that there will come a day in every case of cancer, if let alone, provided the patient does not meet his end by some intercurrent affection, when it can not be cured by any means and will produce death. It also leads me to say that the doctor is wholly responsible for the quacks who cure cancer. I use the term cure advisedly, for they do cure many cases, be it said to the shame of the doctor. And if the doctors of this State will awaken to a sense of their duty along this line, and diagnose their cases of cancer early and treat them properly, or if they have not the inclination to do it, refer them to a physician who will, the quacks who treat cancer in this State will cease to exist; and we owe it to ourselves and our people to do ths. And allow me to say that in my opinion there is no lack of ability on the part of the profession of this State, but the most of mistakes made are due to failure to make a careful and painstaking examination. I am sure such has been the cause of most of my mistakes.

Let us speak more specifically of the treatment—Surgical Ablation of the part. When practical, this should always be resorted to, especially in cancer of the uterus, no matter how early diagnosis is made. Cancer of the breast and cancer of an extremity when far advanced—this ablation should always be followed by X-radiation. It is our opinion that we will never have a treatment for cancer that will leave surgery entirely out of the question.

Ablation by Means of Plasters.

All cases of epithelioma of the skin, if treated early, can be cured by plasters or paste, especially if no care is had for the

cicatrix that will always result from its use. Hence, in men who can not lose time to take the longer treatment by X-ray, and who do not care for the cosmetic effect to be gotten by the ray, we can use plasters or paste to great advantage. But in women who are always sensitive over a scar, whether on the face or other parts of the body, we would always use the ray. It is surprising, even to those who use the ray, what unsightly cancers can be cured by the ray without leaving a visible scar.

Figure 2.

(Cured by five months, treatment with the X ray .and remains cured after 18 months.)

I might say the treatment by light, as sunlight properly applied, the Finsen light and radium would probably all produce the same result, but we are not yet sufficiently familiar, and may never be, with the method of using sunlight, to make it practicable. The Finsen light is too tedious, and radium too expensive, to ever admit of either of them being used extensively, so the treatment by light narrows itself down to the treatment by X-radiation, and there is now no objection since we know enough about it to prevent the burns that were once so troublesome. All cases of superficial cancer can be cured by the ray. Will mention two cases where there was complete destruction of the breast by the cancerous process, and any other treatment than by X-radiation was not to be thought of. The first remains well today after 18 months, the second was seen one year before treatment was begun, and at that time surgical ablation of the breast was advised to be followed by X-radiation. This was refused, and when she presented herself about 8 months ago, left breast was entirely destroyed, with involvement of axillary and supra-clavicular glands, and also involvement of the left breast and scalp. The treatment was used more as an experiment than as a cure, yet the ulceration in right breast healed and remained so, while the other breast seemed to be cured also, but patient died a few days ago with cancer of the right lung. In cancer of uterus and other internal organs irradiation cannot be depended upon for a cure, yet even in advanced cases that are too far gone to admit of surgical procedure, it relieves the pain and offensive discharge and prolongs life.

Dr. Whittington and the writer have discharged sixty cases of cancer in the last two years from our X-ray laboratory. Ten have been refused treatment on account of the advanced condition of the disease. All of them have died except case mentioned above, seen two weeks ago, and she will be beneath the sod before the frosts of autumn appear. Two were treated as a *dernier* resort. One of these mentioned above showed marked improvement, but died with cancer of lung. The other was cancer of the right cheek, and had been treated with paste by a quack. This showed marked improvement, patient died of entero-colitis, superinduced by inability to masticate food, and a ravenous appetite. We have treated four other cases of cancer of the breast; one by X-ray alone, no other treatment being applicable on account of its far advancement; remains cured. Second by surgical ablation, followed by irradiation, remains cured; third far advanced, by surgical ablation, followed in two months by irradiation, breast cured, died of cancer of lung. Fourth, treated by X-ray alone, because she refused surgical ablation, remains cured. Two others treated by surgical ablation, followed by irradiation, remain cured. One interesting case—M. aet. 72. Very feeble, cancer of chest over sternum, starting in a mole, treated first by a quack, because he could find no doctor who would treat it, or tell him where he could get it treated scientifically. When seen by us had cancer size of palm of hand on sternum, gland in left side of neck much larger than goose egg—right side of neck as large as hen egg—gland in right axilla size of a walnut, gland in left axilla large as pint cup—fluctuating. Fluctuation was so marked that we incised it in office and emptied one pint of broken down cancerous tissue with much bleeding; packed cavity with iodoform gauze and began X-radiation. Edges of incision became involved and was extending rapidly at end of four days. Sent patient to hospital and removed glands of both axillae, making careful dissection of brachial plexus and arteries and veins in left axilla; in doing so tore a hole in axillary vein; the vein was picked up with haemostatic forceps, and tied with good result and no untoward

Figure 3.

(Epithelioma, of the left lower eye-lid involving the tarsal cartilage.

Figure 4.

(Treatment by the X Ray. Remain cured after six months.)

effects; operation lasted 30 minutes. At the end of five days patient was able to go to office, and at this time the cancerous process had attacked all the stitch holes and one and one-half inches of incision, although incision was healed. With irradiation the cancerous process was arrested and cured, also cancer over sternum. Gland in right side of neck disappeared, and in left side was reduced to one-third its former size. Patient gained 18 lbs. and went home after four months' treatment comparatively well and perfectly happy; patient died three months later with dysentery. Another case was cancer of the neck, beginning in a mole. This was treated by surgical ablation, followed by irradiation. She remains well today. Two cases treated by surgical ablation alone—both remain well. Twenty cases have been treated by pastes alone—all of them remain well. The remainder have been treated by X-ray alone. All of them remain well but one who showed marked, very marked improvement, but treatment had to be abandoned on account of a stroke of apoplexy. Patient had a second stroke about two weeks ago, but is still alive. The record of our treatment then, not counting the two cases treated as a dernier resort, is as follows:

By plaster	20	remain cured	20
By surgical procedure	2	" "	2
By surgical procedure and X-ray (died cancer of lung 1) (died dystenery 1)	6	" "	4
By X-radiation	20	" "	19
	48		45

Out of 48 cases treated, 45 were cured, 1 died of cancer, 1 died of dysentery, and 1 improved, but treatment abandoned on account of apoplexy. A record to be proud of, I am sure. Finally, let me say once again—*all cases of cancer can be cured* if diagnosed early and treated promptly and properly. All cases will die if let alone.

P. S. The week following the reading of the above paper before the North Carolina State Medical Society, Dr. William H. Mayo, President of the American Medical Association, in his Presidential Address to that Association at its meeting in Boston, Mass., said. "Society must be taught the early symptoms of cancer, the greatest foe of humanity, that its early manifestations may be recognized while in the curable stage." The New York Medical Journal, commenting on this portion of Dr. Mayo's address said he was a "little optimistic." But it is not so. He is simply a leader of thought.

Cholelithiasis.*

By Dr. Henry F. Long, Statesville, N. C.

Mr. President and Gentlemen:

My own experience has demonstrated that it is not the specialist alone who is confronted with grave problems. Within the space of a few months I have been called upon to deal with a series of ten cases, a fact which is significant of the prevalence of cholelithiasis under circumstances which must be met by that individual from whom the public demands so much, the general practitioner. To these, my fellow practitioners, I trust that a brief study of these cases may not be without interest.

The modern era of gall bladder surgery dates back less than fifteen years. During this period improvements in technique, a more definite fixing of the time to operate, and a more enlightened management of cases have contributed to a progressive reduction of the mortality until it compares favorably with that of any other abdomina operation. As a result of this, from being considered a subject for medical treatment, cholelithiasis has been completely transferred to the province of surgery.

As to etiology, Naunyn laid down the rule that the formation of gall stones depended upon two factors—stagnation of bile and infection. The recent researches of Beer, however, seem to imply that these conditions alone are not sufficient, but that in addition a deranged hepatic metabolism —in other words, a diathesis—is a prerequisite for the development of the disease. This theory of the etiology is borne out by the following cases:

Case I.—Mrs. P., 50 years of age. She was the mother of thirteen children, and up to about a year ago had always been healthy, except for a severe attack of typhoid fever ten years previous. A year ago she was seized with pain, first in the right shoulder, then in the stomach, and alternating between the two for two weeks. Similar attacks followed at intervals of two months until two weeks before the operation. In each attack there was a decided jaundice which cleared up after the attack subsided. On each occasion she was given the usual remedies, morphine, sodium, phosphate, olive oil, etc. The patient was in good condition for operation. Tenderness was present at the point of the ninth rib; on deep pressure tumor could be made out, but not distinctly. The area of liver dullness was increased. Incision was made, beginning near the ninth costal cartilage of the right side and running vertically downward through the outer border of the rectus muscle. The gall bladder was easily found and brought into the wound. As there was no fluid in it, it was at once incised, and 106 hard facetted gall stones removed. Besides these, three soft stones which were crowded into the cystic duct were removed. I had no difficulty in working them back into the gall bladder, and removed them much crushed. The 106 others I have here in this bottle, which I shall be glad to have you examine. The gall bladder was next sutured to the peritoneum, a drainage tube pushed to the bottom and the gall bladder left in the sack four days. Bile discharged for eight days and then ceased. The woman left the hospital on the twenty-first day, and has since been in good health.

Case II.—Mrs. ——, 40 years of age. She was the mother of seven children, the youngest being five months old. She had suffered for eleven years from indigestion following a long attack of typhoid fever, and had taken much medicine for the relief of this condition, even beginning the use of morphine tablets on her own account whenever she felt the approach of the attacks, which were frequent and severe. The last one, occurring December 12, 1905, was so prolonged and painful that the family doctor was called. Examination discovered a tumor in the upper abdomen. I saw her that night at twelve o'clock. At this time her whole upper right side was rigid and tender. Her pulse was 160, temperature 104, respiration short and quick, facial expression anxious. I advised the usual treatment in acute intra-abdominal troubles. She improved, and on December 14 was brought to my hospital. She stood the trip well, and when brought in had a temperature of 100 and a pulse of 96. Operation was delayed for 4 days, at which time her pulse and temperature were normal. The usual incision was made, and a dense tangle of adhesions encountered. They were separated, and the gall bladder well exposed and pulled up, gauze strips being well packed around and below it to prevent the soiling of the peritoneum. A trocar was pushed into the gall bladder and about three ounces of fluid was aspirated. The fluid was viscid mucous, dark, fluctuant bile, and serum. The gall bladder was then opened and three large stones, which I have here in this bottle, were removed. The gall bladder was black and gangrenous, its walls much thickened and the whole viscus much enlarged. It was cut away from below upward until the cystic duct was reached and ligated, thus finishing its entire removal. A drainage tube was anchored at the stump of the cystic duct, another, a long tube of split rubber with gauze running through it, was

*Read before the N. C. Medical Society at Charlotte, N. C.

dropped into the subhepatic space, and both left in. The wound was closed in the usual way, and on the fifth day the drains were removed. The patient made a good recovery. It is noticeable that although this was a much more serious case than No. 1, the gall bladder being found in a much worse condition and the patient having suffered for eleven years, yet there was not, at any time, the slightest jaundice.

Case III.—A woman fifty years of age. She had always been healthy except for a very severe attack of measles, followed by bilious trouble. Her condition on examination was found to be practically normal. She had suffered for five or six years with bilious colic, "bad liver," as she expressed it. She had never been badly jaundiced, but said that her skin would turn yellow when she had an attack. Eight months before, the colic became of daily occurrence. The pain was always located in the right shoulder. In this case the abdominal walls were very thin, and the gall bladder could be felt as a hard mass at the end of the ninth costal cartilage. The usual incision was made and the gall bladder at once presented. It was pulled up, opened, and 235 stones removed. It contained no fluid whatever. Further search discovered a stone in the common duct, which was opened, the stone removed and a small fish-tail drainage tube anchored in the incision in the duct. Another drainage tube was anchored in the gall bladder, and still another split tube carrying gauze was passed to the bottom of the sub-hepatic space and brought out with the two others at the upper angle of the incision. Gauze was packed around all and the wound closed to the gauze. In twenty-four hours bile began to discharge freely, and continued to do so for a week, at the end of which time the tubes were taken out. All discharge ceased on the fourteenth day, and the patient went home, much pleased with the relief obtained.

Case IV.—A woman, 65 years of age. She had had typhoid fever twenty-five years ago, and for twenty years had suffered from frequent attacks of colic. For three months she had not been free from pain in the upper right side, except when under the influence of laudanum. The patient was much jaundiced, and examination revealed a tumor in the upper right quadrant. The usual incision was made and the gall bladder presented, with no adhesions about it. It contained no fluid; 13 large stones were removed. The gall bladder was then stitched to the peritoneum, the usual drainage employed and the incision closed in the usual way. The patient left the hospital on the twenty-first day and has been in good health since.

Case V.—Mrs. ——, 26 years of age. The patient was the mother of four children. She had had the usual diseases of childhood, also typhoid fever when about full grown. The first attack of colic occurred two years ago and lasted seven hours. Since then she had had attacks every few weeks, and the interim between attacks was marked by indigestion, distention, etc. Her stools remained natural in color, but constipation was constant. At no time was there any evidence of jaundice. Of late the attacks had become so severe that her physician sent her to me for operation. The usual incision was made, the gall bladder brought up and opened. At the distal end a walled-off abscess was found, which contained about one ounce of pus. In the gall bladder proper was a large stone, not colored like the others, perfectly round and presenting no facet. I have it here in this bottle. The gall bladder was stitched to the peritoneum and the usual drainage employed. The drainage ceased on the tenth day and the woman left the hospital on the fifteenth.

Case VI.—Mrs. ——, 58 years of age. She was the mother of two children, the youngest 24 years old. She gave a history of colic and indigestion for ten years. She had had typhoid fever when young. Her whole body was decidedly saffron colored. The usual incision was made, and the gall bladder found to be so thickened that its cavity was entirely obliterated. I began and dissected it out at once. I could feel a large stone in the common duct, near the ampula of Vater. I attempted to push this along, but it mashed like putty under pressure. I enlarged my incision upward and inward until I could easily palpate and inspect the common duct. I then opened the duct and began with a scoop to clear it out. In this I encountered some difficulty, as it was packed with putty-like stuff and soft stones. When I thought I had it clear, I inserted a fish-tail tube in the opening in the duct and anchored it there, anchored another split tube at the stump of the gall bladder, and dropped still another in the sub-hepatic space. The patient did not do well until the third day, when normal bile began to flow and she improved. Quantities of gravel bile sand discharged for two weeks. The patient's health is improved, but she still has a biliary fistula which discharges intermittently.

Case VII.—Mrs. ——, 32 years of age. The patient was the mother of two children. Five years ago she had an attack of measles, followed by peritonitis and diarrhoea. For four years she had suffered from dyspepsia, gastralgia, etc. Two years ago she was examined by a surgeon who discovered a loose kidney, which he anchored, also re-

moving the appendix. For two months improvement was noticed, but after that her colic returned. I saw her three months ago, and believing that her distress came from the gall bladder advised operation, to which she consented. The usual incision was made and the gall bladder easily found. It was soft and distended with black fluid, resembling tar, too thick to aspirate. The gall bladder was therefore opened and cleared out with gauze sponges, stitched to the peritoneum and drained in the usual manner. The patient made a good recovery, has been able to eat liberally of any diet she likes, and has had no intimation of colic since the operation.

Case VIII.—A man, 23 years of age. He had suffered with pain in the abdomen near McBurney's point, and with "stomach cramps" for five years. For six days before being brought in he had been suffering intense abdominal pain, and although there was no acute pain at this time, he was comfortable only when under the influence of morphine. The usual incision was made, discovering many firm adhesions, from which the gall bladder had to be dug out. The appendix was pulled up into the incision, and as it was found looped upon itself, was removed. The gall bladder was very much inflamed and diseased, and contained several ounces of black, tar-like fluid. Owing to the adhesions and to the fact that the liver was slightly movable, I could not attach the gall bladder to the peritoneum. I therefore anchored a tube in the gall bladder and let it drop back, placing gauze tucks all around the tube and closing the incision up to the gauze. In twenty-four hours bile was being discharged, and the patient improved steadily to recovery.

Case IX.—Mrs. ——, 32 years of age. The patient was the mother of three children. She gave a history of typhoid fever, colic beginning a year after the fever and extending over a period of eight years. Attacks became more and more frequent until she sought relief in operation. Cholecystostomy was performed and eight gall stones removed. The fistula which followed discharged for four months. Since that time the patient has been in good health.

Case X.—Mrs. ——, 48 years of age. The patient was the mother of nine children. For two years she had been having severe stomach cramps, pain in the right hypochondrium passing to the right shoulder. Her attending physician made a diagnosis of gall stone disease, and she was sent to me for operation. The usual incision was made. There were no adhesions and no fluid in the gall bladder, which was filled, however, with small stones, 97 in number, which I show you here. Bile began to flow before the patient was taken off the table, and continued for three days. After the effects of the anesthetic were gone the patient showed decided delirium which increased until it became wild and maniacal, and continued until she died on the third day.

From the above cases it will be seen:

(1) That there was present in every case a history of intestinal infection of some description, and that the infected gall bladder dated back to this infection.

(2) That the degree of pain experienced has no relation to the number of stones present. (As shown by cases III and V.)

(3) That a colecystitis in which no stones exist, but in which the gall bladder contains a viscid fluid too thick to be forced through the duct will occasion as much pain and as much toxemia as though the gall bladder was full of stones.

(4) That among the intestinal infections previously alluded to chronic appendicitis is particularly liable to be associated with infection of the gall bladder, appendicitis, loose kidney and diseases gall bladder frequently co-existing.

(5) That cholecystectomy should not be done unless there is evidence that the gall bladder is itself diseased.

(6) That there is a large percentage of cases in which jaundice does not occur even though the stone be present in the common duct.

(7) That the surgeon who waits for the graver "classic" symptoms such as jaundice, clay-colored stools, enlarged liver, etc., which may never appear, makes a serious mistake and will miss the opportunity of relieving many patients who suffer from disease of the gall bladder.

(8) That all cases, unless indications for immediate operative interference are present, should be tided over and brought to an interim operation.

Results of Gonorrhoeal Infection in the Female.*

By H. B. Weaver, M. D., Asheville, N. C.

The census of 1900 shows that there are in the United States twenty-five millions of men over fifteen years of age, and about the same number of females. The ablest authorities, and the most conservative, on venereal diseases estimate that of this vast male population, 80 per cent. have been infected with the gonococcus. Then, if 80 per cent. of males have suffered and do suffer from specific gonorrhoeal infection, how many, oh! how many females are subjects

*Read before the North Carolina Medical Society at Charlotte, N. C.

of this baleful disease with its everlasting, perilous results?

The laity and a large minority of the medical profession have small conception of the insidious nature, the difficulty of cure, and the serious consequences of gonorrhoea. It is only in the last few years that the gravity of this disease has been fully realized in the manifest inflammatory results which follow in the wake of infection of the female pelvic organs.

The dictum, that it is a trivial affection; that it is not more "than a bad cold;" and can be cured in a week, and allowing those thus afflicted to marry is responsible, in a great measure, for its prevalency and far-reaching results. After admitting the prevalency of gonorrhoea, it is astonishing with what stolid indifference the medical profession still views this disease—the greatest destroyer of health and homes. A majority, doubtless, of the medical profession still insists that of the serious and lasting effects of the two diseases,—gonorrhoea and syphilis, the latter far out-weighs the former. But facts and figures do not warrant this conclusion. Old Ricord said, "A clap begins and God only knows when and where it will end."

It is maintained by many prominent writers that gonorrhoea is practically incurable. Lapthorne Smith thinks "that none are absolutely curable." Noble says he "regards it as a matter of great difficulty to positively eradicate gonorrhoea in the female." Frederick says, "I have never seen one whom I felt sure was absolutely cured."

When we view these statements of men from different portions of the globe, whose experience and character render them entirely trustworthy, should we not begin at once to inquire, both from a medical and civic standpoint, what we shall do to *mitigate*, at least, the ravages of this disease?

One of the most fertile sources which accounts for the prevalence of gonorrhoea, is its latency in the female organs. W. R. Pryor, writing on latent gonorrhoea in women, says, "Of 197 prostitutes, the microscope being used, gonococci were found in 33⅓ per cent. in the cervix uteri: 120 women showed gonococci in the urethra: and after five months' observation of 53 gonorrhoeic women, gonococci were found in the cervix of 75 per cent." Noeggerath long ago called attention to the pernicious influence of latent gonorrhoea, when it was known often to produce vaginitis, endometritis, and salpingitis, soon after marriage, when the cause of the trouble was not suspected either by husband or wife. Hence, in observing the gonococcus from a bacteriologic viewpoint, we find that one of its most marked characteristics is its pedatory and *invasive* nature, extending by continuity, as it does, along the mucous membranes from one organ to another, which nature the traumatic and other non-specific inflammations do not possess. Not only does the gonococcus possess the faculty of attacking the leucocytes, and with other pus organisms produce a local infection, but, as is proven by Winn, there occurs *general gonococcal infection*, whose symptoms and lesions depend on absorption of a *toxin*, as well as direct infection of the gonococci itself.

Gonococcal infection has no special clinical features by which we may differentiate it from other pyemias, and the only positive diagnosis that can be made is by bacteriological examination of the blood. Hence, it is proven by microscopic findings that the gonococcus penetrates almost every tissue of the body, and as Peterson aptly remarks, "The closer we study the diseases of women" under the new light of bacteriology, the higher percentage of complications shall we find, which are the direct results of specific infection.

Now what are some of the results of specific infection in the female? The gynecologist, perhaps, sees more of the serious and lasting effects of gonorrhoea than the general practitioner. And I undertake to say that, from my experience, I believe the ravages of gonorrhoea in women are more severe and fatal than those of syphilis.

When we consider that the gonococcus is responsible for 80 per cent. of all inflammatory diseases of the female pelvic organs; for practically all the pus tubes, for a large portion of local peritonitis; 40 per cent. of all blindness; 50 per cent. of sterility; for the despoilment of homes and happiness, then is it any wonder that we should assert that the sequels of gonorrhoea are far more serious and fatal than syphilis?

Warren, in his latest work, (1902), says: "The chief complication and danger in gonorrhoea in the female is the infection of the uterus and the uterine appendages. Gonorrhoea is the chief source of salpingitis and pelvic peritonitis, and may cause general peritonitis." Byford says, "A majority," Mann and Wathen believe "nearly all cases" of pelvic inflammations are traceable to gonococcal infection. Joseph Price declares "that in over 1,000 sections for pelvic suppuration, 90 per cent. were traceable to gonorrhoeal infections, and that 90 per cent. of these histories are reliable and clear." Coming, as it does, from such eminent authority, this is a remarkable statement, and speaks a volume in a word, and should claim our most serious attention.

Endometritis as a sequel is the most common and difficult disease to cure. And as Warren well says, "Patients often recover

without known reason; but after apparent cure, the disease will often recur." And why? Because the gonococci have buried themselves deep into the sub-mucous tissues beyond the reach of antiseptic germicidal medicines, where they hatch, as it were, new colonies, and *reinfect* by continuity, new tissue; and so the process is repeated until, many times, the infection reaches the Fallopean tubes and appendages, and no amount of treatment, by curretage, local applications or otherwise, will avail in the cure. A woman may have endometritis, with purulent leukorrhea as a symptom, for many years, and yet in other respects be in perfect health, until the mixed infection reaches the tubes and she then has a pronounced salpingitis. Now salpingitis is practically a chronic disease, and as we have said is almost always of gonorrhoeal origin. The march of *gonorrhoeal salpingitis* is slow, and is preceded or accompanied by closure of the abdominal ostium, brought about by coaptation of the walls of the tubes and fimbriae. Later on, the uterine end of the tube becomes closed by the exudate, pus accumulates in the tubes producing a tumor—by distention—and we have a classical *pyosalpinx*. This condition, of course, can be relieved only by surgical interference. Notwithstanding the mutilation which necessarily follows the use of the knife, it is the only hope and means of a cure.

We could multiply cases illustrative of the pathology and treatment of these results, but the details of the same are found in our text-books; but the point I wish to stress is the *duty of the hour*; *the manifest duty of the family physician in this crisis*. He is the man behind the gun in this combat against the greatest scourge; and it is through him and by him that relief must come. *Prophylaxis* is the watchword. It is a campaign of education. The people need instruction along these lines. They should be taught the means of prevention; we should impress both men and women with the gravity of the disease, and the supreme importance of permanent cure before contracting the marriage state; for too many men are permitted to marry with a latent gonorrhoea, and in a short time infect a poor, innocent wife.

In view of these facts, it is no small wonder that the American Medical Association, at a recent session, thought it of sufficient importance to appoint a committee to inquire whether and when a gonorrhoeic may be permitted to marry, and whether the matter is a proper one for regulation by statute.

In closing, considering the fact that twenty millions of men suffer from gonorrhoea in the United States alone; that 80 per cent. of inflammatory diseases of women; that 40 per cent. of blindness; and 50 per cent. of sterility are due primarily to gonorrheal infection; I say, is it asking too much of our committee on legislation to inquire into the feasibility of legislative enactment for the prevention of gonorrhoea?

Intestinal Indigestion: Its Dietetic and Rational Treatment.*

By J. E. Ashcraft, M. D., Monroe, N. C.

This subject has been chosen because there is very little attention paid to the discussion and treatment of intestinal indigestion in our modern works upon medicine, and also for the reason that the malnutrition consequent upon intestinal indigestion is largely responsible for almost every disease that occurs in the human organism. To perfectly understand intestinal indigestion necessitates a clear conception of the chemical composition of the common food stuffs, and the transmutation process that they must undergo before they can be absorbed and assimilated. This accomplished, the abnormal is quickly and accurately detected. Briefly stated, all food stuffs when minutely studied chemically are found to be composed of three distinct classes of compounds.

First, the inorganic substances, or those which enter the system under their own form, pass through unchanged, and come out in the same shape that they entered. They assist the economy physically rather than by chemical activity.

Second, the carbohydrate and hydrocarbon compounds, such as the starches, sugars, and fats. All of this group act primarily through chemical action, being oxidized into carbon dioxide and water with the production of heat.

Third, the proteids, of which there are two grand classes: the vegetable proteids or those existing in a polymeric state, and the animal proteids, which are in the form of single malecules.

The chief causes of intestinal indigestion are of two kinds. First, the presence of micro-organisms, and the fermentative changes produced in the food stuffs in the alimentary canal by their presence. Second, the taking of considerably more food than can be digested and perfectly oxidized, and also the taking of food of faulty composition. To these may be added, not as direct causes, but as conditions which influence perceptibly the perfection of digestion and assimilation, the kind of work which the individual has to perform, the lack of exercise, the peculiar conditions of the nervous

*Read before the recent meeting of the N. C. Medical Society at Charlotte.

composition, the mental state, climatic influence, etc., all of which play their part in influencing the digestive phenomena.

The micro-organisms are apt to excite the more pronounced lesions of the alimentary canal, such as true inflammatory conditions. Still, it must be admitted that most of the abnormal fermentative processes that occur in the food stuffs in the alimentary canal have their origin in some form of micro-organisms. While micro-organisms are always present in the alimentary canal, the normal secretions and digestive processes appear to be sufficient to prevent any deleterious influence from their presence, or any disturbance in the normal digestive phenomena.

The most important fact, then, in the production of intestinal indigestion, is the mistake of too much food, and especially that which is faulty in composition, (as the substituting of cow's milk for human milk in infant feeding), or the use of vegetable or starchy foods in young children before the full development of the digestive organs.

The milk-sugar, the fat, and the proteids contained in the milk of the mother are in that condition in which the digestive apparatus of the infant can most easily transmute them into an absorbable state, while the chemical composition and proportions of the sugar, fat, and the proteid in cows' milk are differently arranged, consequently not available in its natural state for perfect results in infant feeding. Consequently, the use of cows' milk alone is prone to produce digestive disturbances and malnutrition. When properly diluted and modified by the addition of other substances, such as eggs and barley water, cows' milk can be made available for infant feeding. The mother's milk, when of perfect composition, yields the highest degree of nutrition with the least tax upon the digestive powers of the child. All deviations from this fixed plan of nature tends to lower the nutritive vitality and ultimately excites intestinal indigestion.

In the adult, over-indulgence in food may be sufficient to cause intestinal indigestion. But when this is coupled with faulty composition a decided disturbance in the digestive process must follow sooner or later, depending upon the inherent chemical activity of the organism.

From a careful study of the normal process of digestion, it becomes apparent that a well-regulated mixed diet is the most desirable at all times, except in early infancy, old age, and in some diseased conditions, when a purely milk diet is the most desirable. A well-regulated mixed diet is one that contains the mineral ingredients common to the animal organism, the starches or sugars, the fats, and the proteids all so proportioned that the requisite amount of heat will be produced by the carbohydrates along the line of the entero-hepatic system and by the fats in the lungs, and the full amount of constructive material supplied.

The animal and vegetable kingdoms both contain these three classes of substances. No one of them is perfectly adjusted, however, for the best results, although milk, so far as composition is concerned, comes very close to perfection. But milk, like every other single article of food, has its defects. Therefore, to secure the most perfect results the animal and vegetable compounds in some form should be blended together in outlining a well-regulated mixed diet.

The vegetables, taken alone, contain an excess of the starches and sugars, and comparatively little fat. Their contained proteids, which often exceeds in percentage that found in the animal kingdom, is less available for assimilation than the latter, because owing to its highly polymeric structure it is less readily split up to meet the requirements of the organism and is much more difficult to convert into a peptone. In fact, the task is so great that from 15 to 60 per cent. passes through the alimentary tract without being so transformed, while with the animal proteids the loss is only from 2 to 10 per cent.

Therefore, when living upon an exclusive vegetable diet a large bulk of unavailable material must be taken into the alimentary canal to secure the absorption of the requisite amount of proteid substance. With this there is also an excessive amount of starch and sugar, and a deficient quantity of fat. If the individual has been blessed with a strong digestive apparatus, and can lead a comparatively leisurely and out-of-door life, many years may pass without material damage to the economy upon a purely vegetable diet. If, on the other hand, adverse conditions are imposed, as they frequently are with such a diet, intestinal indigestion and various forms of malnutrition will speedily follow.

The liberal use of fruits is another very potent factor in exciting abnormal fermentation of the food stuffs in the alimentary tract. It is the irritation that arises from this disturbed action in the transmutations of the food stuffs that makes them laxative in their nature. Many of the fruits in the market are plucked before they have had an opportunity to fully ripen; in their raw state they are often laden with micro-organisms, and at best are in a state of partial decomposition when they are introduced into the alimentary canal. Therefore, they should be avoided as laxative agents.

A meat diet alone is defective in that it does not contain any glucose compound;

but when the term "animal diet" is used in its true meaning, it includes milk, eggs, butter, cheese, and all the products that are obtainable from an animal source. Under these conditions, all the three classes of chemical compounds are fully represented in an animal diet, and can be secured easily in the required proportion.

On the other hand, when the term vegetable diet is used accurately, it excludes the use of butter, lard, eggs, and milk, and every animal product, even in the process of cooking. When this is done it is found to be absolutely impossible to construct an exclusive vegetable diet in which the three classes of chemical compounds are properly proportioned. A near approach to perfection in composition, even if such were possible, would still necessitate the introduction and transmission through the alimentary canal of a large amount of waste and irritating material, owing to the great indigestibility of the vegetable proteids. Consequently, sooner or later, the system must suffer. It is for these reasons that the excessive use of the vegetable compounds and fruits is so prone to excite intestinal indigestion. In a similar manner an animal diet may result in intestinal indigestion, not so much from faulty composition as by the too liberal use of the animal food stuffs.

These, then, are the essential conditions or factors that tend to, and do actually, cause the innumerable cases of intestinal indigestion which are constantly presenting themselves for treatment.

The clinical feature presented in connection with intestinal indigestion is an exceedingly complex and varied one. The symptoms may be acute or chronic in their nature. It is the chronic class, however, that is the most important and the most varied in symptomatology.

In the purely acute intestinal indigestion there are so many primary gastric symptoms. The food taken has passed through the stomach without exciting gastric irritation. When the food stuffs reach the intestinal tract, some two or three hours after the last meal, or even at a still later period, an abnormal fermentation is developed. Instead of the normal transmutation products of digestion, which give rise to no perceptible symptoms, abnormal products are developed, some of which are of a gaseous nature and cause considerable distention of the intestine, thus expanding the intraperitoneal cavity, and in some instances giving rise to actual and severe pain. This is especially true when the transverse colon becomes distended and crowded upward behind the stomach and in front of the vertebral column. When this is the case, undue pressure is brought to bear upon the solar plexus, which may cause an intense pain located at the pit of the stomach, or the pain may be more or less diffused throughout the abdomen. In other instances, the distention simply causes a sensation of intense discomfort. In either case the distress continues until the gases are absorbed or discharged from the alimentary canal by being passed through the rectum and anus, or by being regurgitated into the stomach, from which they are belched up and discharged per os. This localized pain and belching of gas often cause the false impression that the stomach is at fault. The distention of the abdominal cavity often crowds up the diaphragm, which, together with the reflex disturbance in the nervous system, causes embarrassed respiratory action, and a rapid and irregular heart action.

At the same time that the gas is formed, or even without much gas formation, toxic products, or ptomaines, are produced in the alimentary canal. These, when absorbed into the circulation, together with the peripheral irritation of the nerves distributed to the alimentary canal, cause marked constitutional symptoms and reflex nerve phenomena. The individual may have severe head, heart, and back-ache, and a sensation throughout the whole system as if he were under the influence of some toxic agent. There may be rise in temperature and a scanty elimination of urine. All these symptoms will rapidly disappear after free action of the bowels, obtained through a mercurial; and what simulated strongly the beginning of an acute infectious disease will prove to be simply a case of intestinal indigestion, the normal state rapidly taking the place of the previously abnormal condition.

In the chronic cases it is much more difficult to exclude the stomach. In fact, in many instances it is impossible, because the long continued imperfect intestinal indigestion has caused defective action on the part of the liver, pancreas, and all the organs which are concerned in digestion. A state of general malnutrition has been established, and the stomach has become weak and irritable in consequence. In other instances a primary gastric disturbance will lead to intestinal indigestion.

A careful study into the history usually shows that the stomach is not primarily at fault. The meals cause no primary disturbance or discomfort. There is no pain or vomiting upon taking food, the individual affected often declaring that he can eat everything, and that nothing disagrees with him. Yet these same individuals will complain of great discomfort in the abdomen, coming at varying times after taking a meal. The intestines become greatly dis-

tended with gas, and the victims often experience intense attacks of pain, relief coming, after an hour or two of acute distress, by the regurgitation of the gas back into the stomach, from which it is finally belched up and discharged per os. Observing such cases closely, the tongue is found to be soft and flabby, often showing the deep imprints of the teeth along its margins. The dorsal aspect is more or less heavily coated with a dirty brown fur. The conjunctivae and mucous membranes in general are pale, and show a decidedly anemic state of the blood. Instead of the clear and ruddy complexion indicative of perfect nutrition, the skin has a dull, muddy appearance—one hard to express in words, but quickly appreciated by the well-trained eye. The sclera and conjunctivae are more or less tinged yellow, showing that the function of the liver is imperfectly performed. Depending upon the character of the faulty action of the liver there will be defective bile secretion of two kinds. The bile may be decreased both as regards quantity and quality. When this is the case, obstinate constipation is the rule. When the quality of the bile is altered rather than the quantity diminished, it is often unduly irritating to the intestinal mucous membrane. This, together with the irritating products resulting from the abnormal fermentation of the food stuffs contained in the alimentary tract, will, as a rule, produce a diarrhea. The diarrheal discharges often contain more or less mucous, without any inflammatory action in the intestinal canal. These discharges are also very irritating, and often produce considerable pain and tenesmus in the lower bowel and anus. The urine is apt to be scanty, high colored, and superacid. The elimination of urine is decreased, and the output of uric acid is abnormally large. The bile salts and pigments are usually found in such samples. Oxalic and lactic acids, albumin, and glucose may be found in some of the more aggravated cases. This superacid condition of the urine, together with the consequent malnutrition dependent upon the long continued intestinal indigestion, causes an unhealthy condition of the mucous membrane lining the genito-urinary tract, with a hyperesthetic condition of the nerves which are distributed to this canal. The over-acid urine now acts as a constant irritant to this supersensitive membrane, thus causing considerable vesical irritation, painful and spasmodic action on the part of the bladder similar to what occurs in connection with a true cystitis. There is frequent and painful micturition. It is often for these symptoms that the physician is first consulted, and the poor victim is vigorously treated for the local condition, while the true cause of all the trouble passes unrecognized and untreated. This continued absorption of toxic compounds from the alimentary tract, together with the reflex nervous irritation, keeps the liver continually over-taxed. The central nervous system is poorly nourished and unduly irritated. As a necessary sequence, we have a large and varied train of nervous manifestations. There may be: intense headache, continuous or intermittent in character; mild or severe neuralgic attacks confined to single nervous trunks, or multiple in distribution, simulating in some instances a rheumatic attack. There may be insomnia, or a strong tendency to suicidal mania. There may be the opposite, or a stupid, sleepy condition, almost reaching semi-coma. In other instances all the symptoms common to the most aggravated neurasthenia are directly traceable to the prolonged intestinal indigestion, abnormal fermentation, and toxic infection.

All the non-parasitic skin affections are, in a large measure, only the symptoms of intestinal indigestion, and not independent disease. Thus we find the phenomena of intestinal indigestion presented in one great complex of symptoms, which are often misleading, and, by their local intensity at one point or another, often lead to absolute errors in diagnosis, followed by unsatisfactory results from the best efforts in the line of treatment. Accuracy in diagnosis in these cases can only be secured by a full comprehension of the physiological laws which govern the processes of digestion and assimilation by a careful study of the patient's habits, and of the method of the development of the symptoms, so that effects are not mistaken for causes.

The prognosis in these cases is good if they are recognized early and carefully treated upon a physiological and rational dietetic and therapeutic basis. The prognosis is less favorable when they have been allowed to go on for years, until some of the secondary effects become in themselves almost diseased processes. Then it becomes, in some instances, almost impossible to effect a cure.

The chief line of treatment to be employed in combating intestinal indigestion consists in regulating the diet in accordance with the well-known physiological laws that govern animal life. The physician must be thoroughly conversant with the chemical composition and possibilities of the various food stuffs. A careful study must be made of each case separately and every idiosyncrasy for or against all food products accurately noted. The urine must be carefully examined, not so much for albumin and glucose, as to determine the comparative

output of urea and uric acid, and also to ascertain what other forms of incomplete katabolins may be present in the renal secretion. This accomplished, the diet must be regulated absolutely both as regards quantity and composition. The particular kind of food must be prescribed with just as much precision as the medicaments that are used. At the same time the urine must be examined frequently and the exact modifications in the elimination of the katabolic products carefully noted. When this is done systematically the exact changes in the system can be determined accurately from day to day.

In prescribing a special diet one principle should always be kept in mind, which is that a well-adjusted mixed diet, when it can be perfectly digested, is the height of perfection. It will secure the most complete transmutation of the food stuffs, and in consequence absorption and assimilation will reach the highest standard, and perfect health will be established.

In almost every instance of intestinal indigestion the mixing of the various kinds of food stuffs, as is commonly done, will not be tolerated by the enfeebled and already defective digestive apparatus. So long as this plan is pursued the case will not improve. In all cases of intestinal indigestion, from the mildest to the most intense type, it is absolutely necessary to limit the diet to a greater or less extent, both as regards quantity and the kind of food stuffs taken. In many instances it may be necessary to limit the diet to a few articles of food, as milk, barley-gruel, or broths; very limited amounts, so much so that, at times, the patient may even loose flesh, while the defective digestive function is being slowly but surely re-established. The fancy of the patient must not be considered, but that form of diet must be chosen which will be most effectually digested and yield the largest amount of nutrition. It may be wise at times to take out in a large measure the fat or the sugar from milk. This can be accomplished by ordering an exclusive skimmed-milk or butter-milk diet, or, on the other hand, a diet of kumyss or matzoon, the former taking out the fat and the latter the sugar. When any one of these limited plans of dieting is resorted to, the heat production necessary to keep the nervous mechanism fully in action falls to too low an ebb. When this is the case a little alcohol must be added, as it can be oxidized and produce heat without expending any digestive energy, thus making up in a measure for the defective heat production. In other instances the plain milk diet will accomplish the best results. This is especially so when the milk is taken warm, or with a little lime-water, barley-water, or egg-water added. Other cases will do better by excluding milk in any form, and limiting the diet to broths, gruels, eggs, etc.

An important point, which must be kept always in mind when a patient is placed upon an exclusive animal diet of any kind, is the well known chemical fact that all animal food stuffs contain a very low percentage of the nucleo-albumin—not enough to produce the hemoglobin and lecithin as rapidly as they are decomposed in the animal economy. This being the case, even if the subject is not already anemic, there is a tendency for him to become so upon an exclusive animal diet. Consequently, some hemoglobin-forming compound must be continuously administered to supply the deficiency.

As a vegetable class of food stuffs contain a large percentage of the nucleo-albumin, it should be our aim to introduce some form of vegetable compound in limited amount as speedily as the digestive system will tolerate their presence without exciting undue fermentation. By so doing we supply most effectually the natural and only compound so far known to physiological chemistry out of which the physiological economy can easily and rapidly increase the hemoglobin and overcome the anemia. Many of the succulent fruits and green vegetables contain the largest percentage of this nucleo-albumin. When they can be tolerated, they are valuable for this purpose; but, as a rule, they tend to excite so much abnormal fermentation of the food stuffs in the alimentary canal that they must be excluded absolutely. The vegetable substances that furnish a full supply of nucleo-albumin without abnormal fermentation are barley, rice, wheat, and rye; barley and rye being especially valuable on account of the high percentage of the nucleo-albumin.

The mixed diet which most effectually meets the foregoing demands, as soon as it can be tolerated, is one composed of milk, eggs, meat, and toast, or stale bread and butter. Under the heading of meat is included fish of all kinds, game and poultry. Beef and mutton are taken, however, as the standard from which all the other forms of meat are calculated. If one particular form of meat cannot be tolerated, another kind must be substituted. In like manner, if milk and eggs cannot be utilized, some other form of food stuffs must be substituted. The same rule holds true in the selection of the vegetable substances. When these details are all observed carefully, a well-regulated mixed diet can usually be secured —one that will furnish the requisite amount of all the chemical substances that are required to sustain the animal economy and

still keep well within the limits of the oxygenerating capacity.

The medical treatment of intestinal indigestion consists in the use of a little dilute hyd.ochloric acid, either alone or in combination with some pepsin, preferably alone, to augment the transmuting or peptonization of the proteids of the stomach. This accomplished, the amount of work imposed upon the intestinal digestive function is reduced to the minimum. Transmutation of the food stuffs in the intestines can be greatly augmented by the use of a few grains of inspissated ox-gall and pancreatic extract three times daily before eating. The undue fermentation is also checked in part by these substances. To this may be added animal charcoal, resorcin, salicylic acid, naphthalin, phenacetine, or any one of the numerous intestinal antiseptics, so-called, that may suit the fancy of the prescriber. None of them will produce any profound and startling results, but they assist in a measure to subdue the abnormal fermentation. When the liver is performing its function abnormally, and the tissues are stained with bile pigment, a mercurial of some form is in order, and is always followed by an improvement in the general and local condition.

When constipation is a prominent symptom, it must be overcome by some laxative agent, which acts upon the normal plan of nature.

Caffeine and strychnine are valuable agents in intensifying nerve innervation. They also augment the intestinal circulation, and cause a more rapid and equable distribution of the blood throughout the body.

Remarks on Railway Sanitation, with Special Reference to the Dangers of Present Methods of Disposing of Human Excreta, and Suggestions for Improvement.*

By J. Howell Way, M. D., Waynesville, N. C., Surgeon Southern Railway; Member North Carolina State Board of Health; Secretary Tri-State Medical Association (Va., N. C. and S. C.); Member American Medical Association; American Public Health Association, &c., &c.

In the multifarious avenues of human activity the modern trend of both human thought and endeavor is constantly forward and upward. The thousands of acres of fertile soil which has only recently been wrested from extreme aridity and transformed into sources for the cultivation of vitality sustaining products; the harnessing of the mighty cataract of Niagara and its utilization in varied and sundry manufacturing industries over a considerable of a great State's surface; the digging of extensive tunnels under towering mountains, beneath great cities and below the road-beds of huge rivers in order to gain time and distance in transportation problems; the turning to practical value of all the discoveries in science to the conservation of energy and the production of force in new forms—these are peculiarly enterprises characteristic of the age in which we live.

Medicine, like other branches of science, has not stood still, but rather by great leaps and bounds it has gone rapidly forward in the past few decades until today its votaries rank first among the educated and cultured men of every intelligent community.

And yet while our art has been immeasurably improved and perfected, it is to be remembered that the very constantly increasing complexity of modern life is daily presenting for solution new problems in the manifestations of and the therapy of disease, and in what is more vital import we now believe, in its prophylaxis. Most prominent among the problems for medical men and sanitary inventors of the future to solve will be the perfection of details to render practical and useful to the race certain technical principles which we now well understand.

The science of medicine is, in many of its administrative details, as yet wholly an experimental one. In many things the pure science has advanced to points where as working, not theorizing men, we have been unable to place in practical operation some of our most valued theories. In no department of activity is this proposition more true than in the varied sanitary problems with which modern society in the infinite variety of its conditions is daily confronted.

Comparatively recently when more than ninety per cent. of the American people lived most literally the simple life in rural districts, with ample grounds about them, the problems of sanitation which now so perplex and complicate the situation the urban builder must overcome, were not even thought of. Likewise when the first simple railway appeared in America within a few miles of the historic ground we stand upon in this our eleventh annual session, with iw modestly constructed cars, there were fets or no sanitary features essential for consideration and elucidation; but with the enormous growth of the railway systems of the country and their constantly increasing elaborateness of construction shown in every detail of the splendidly conceived modern cars, there have arisen numerous sanitary problems, all of which as yet have not been wholly satisfactorily solved in practical detail, though theoretically we are advised of the deficiencies and the points needing fur-

*Read at the eleventh annual session of the Association of Surgeons of the Southern Railway held in Charleston, S. C., May 22-24, 1906.

ther development.

Without discussing the various ethical propositions involved, all agree the dominant spirit of the times demands that railway corporations shall at all times and under all possible circumstances provide for the convenience and comfort, as well as the safe and quick transit of its patrons; meeting each of these requirements with the very highest grade of equipment which modern science and skill has developed. Among the necessary requirements demanded, and most properly so, is that railway systems shall so construct, equip and manage their stations, cars and road-beds in such manner as will be most conducive to the health of their passengers, and with ample regard to putting into practical operation the more advanced theories of sanitary science.

Among the first things which impress the traveler as a defect, the elimination of which would be contributive to the comfort of the traveling public, is the wasteful consumption of fuel, which instead of a completed combustion turns loose to float backwards into the eyes, ears, noses and throats of passengers large quantities of imperfectly oxidized gases, laden with smaller particles of unburnt fuel, irritating to an intense degree all exposed mucous surfaces, and financially wasteful from the transportation company's view-point. Much inventive genius has been exercised in efforts to remedy this defect, but as yet it remains, despite the numerous inventions claimed as adjusting it, one of the unsolved problems of practical railway operation.

With the constantly increasing care and attention to strict cleanliness in all its departments, which I believe the modern home receives, it is but natural that the public should demand a relatively high degree of cleanliness in the care of stations and cars. The offices and waiting rooms of the better hotels are always, as a rule, cleanly kept, and it is done by constant unremitting care. Cars and rooms in stations accessible to the general public can be continually undergoing the cleansing process, and the fact that the companies are constantly working to keep things neatly is an influential factor in promoting care in the passengers to personally co-operate in the work. In the larger city stations I do not believe there is very frequent cause for just complaint of the sanitary attention paid to stations and trains, but in the smaller cities and on cars frequented by purely local travel, there is too often seen a lack of proper effort to keep them clean and the sanitary conveniences fit for use by individuals of decent personal habits. Now as a matter of fact the charge for transportation is quite as much on local lines, and a proper consideration of the rights of the traveling public should induce the corporations to extend the system of cleaning cars and stations to local trains and rural communities instead of as at present neglecting these and bestowing all this attention in the way of thorough cleansing and disinfection to the through trains and the cars used more exclusively in and about the larger cities of the country. The tendency to construction of cars as regards their interiors along plain, simple lines, with few panels and insterstices in the decorations to catch and retain dirt is an indication of the fact that railway people are constantly on the alert to the betterment of all possible details of the operating service, either for the benefit of the patrons or the improvement of the service. In connection with this matter of interior finish, it is of interest to remark that up to the present time there does not appear to have been devised any material as well adapted for seats as the rather old-fashioned plush which we have been condemning for these ten years past, largely because it was the custom to abuse it. Metal or hardwood seats, ideal for street cars and possibly other cars making only short runs, assuredly are not comfortable for through trains or long distances. Leather is likewise objectionable and it appears that plush will likely continue, at least for a time, to be used, and with the frequent cleansings which the coaches on the better lines now receive, plush is really not so objectionable as it was considered some years ago. With the formaldehyde and compressed air treatment daily applied to removable seats and backs there is apparently no good reason why plush seats can not be kept free from infection. As indicating that plush is not necessarily a greater carrier of possible infection than smoother surfaces I noted with much interest some experiments reported a few months past at the meeting of the surgeons of the Erie system. Briefly speaking, such experimental investigations showed that smears of microbial infection placed on different materials like glass, smooth wood, leather, and other substances, along with plush, the disinfection under both formaldehyde and air-blast to have been more complete and prompt in the case of plush than in either of the other materials subjected to the test. In this connection a suggestion to the traveling public may be pardoned. It is this: People who travel have a duty to the railways in the matter of cleanliness in cars and stations in avoiding the making of unnecessary litter, in not placing shoes which they would never think of putting on the chairs in their own or their friends homes on the car seats, and remembering the air space on all cars is essentially a limited one, to avoid coughing and sneez-

ing without covering the face.

The ventilation problem of railway cars is a most serious one and well worthy of all the careful attention it has received in past years, though despite the existence of more than two score of patents, which I am advised are contained in the offices at Washington, is yet in an unsatisfactory state. A brief reference to certain primary conditions reveals why this should be so. An average passenger car contains about four thousand and three hundred cubical feet. Now with its full complement of sixty-four passengers aboard, each, for the purposes of perfect ventilation requiring thirty feet of fresh air each minute, it follows there should be taken from and replaced every minute in round numbers two thousand feet of air—almost one-half of the entire cubical capacity of the caf. Considered for a moment it is seen this is a relatively rapid air-change, and when we add to it due regard for the fact that the coach will a part of the time be standing still, while at others it is moving at rates of rapidity varying from nothing to sixty miles an hour, we can better appreciate the complexity of the problems involved. To accomplish perfect ventilation necessitates a rapidity of air movement which is so active as to be noticable, and this means sitting continuously in a draft which is out of the question. To not receive sufficient pure air and to breathe the dust and combustion gas-laden air means the tens of thousands of minor coughs, colds, and bronchial irritations with innumerable pneumoiae, which are contracted annually in traveling as an immediate result, besides the possibility of often preparing the pulmonary mucosa for tubercular infection.

The Dudley method, devised by Dr. Dudley, Chemist of the Pennsylvania system, and which is being quite generally installed in their new coaches, is perhaps one of the most practical methods yet invented for day and parlor cars, but on account of diminished space is not applicable to Pullman or trolley cars. In this system the air is taken from the roof of the car through covered downspouts and communicating with channels running the whole length of the car and covering the heating pipes is distributed from beneath the seats into the aisle. The outlets for bad air are the familiar screened deck openings. Dr. Hurty, the efficient Secretary of the Indiana State Board of Health, has suggested a modification of the Dudley system which he claims will permit the closing of the deck openings, thus eliminating the great sources of discomfort arising from the entrance of smoke and dust from that quarter. In his arrangement the essential changes of the Dudley system, in addition to closing the deck openings, is to provide for the elimination of the foul air through the exit openings which are placed near the floor within the closets and wash rooms.

The newer type of Pullmans with their comparatively smooth interiors, the use of linoleum instead of carpets in the closets and lavatories, the abolition of the feather-duster and its replacement with dampened towels to remove the dust, the careful attention paid the linen, the covering of the blankets with fresh sheets, and the frequent airing and sunning now claimed to be given the blankets in addition to their regular treatment with formaldehyde, these efforts coupled with the regular systematic fumigating of the cars, all attest the disposition of the managers of this branch of the service to promote a relatively high standard of railway sanitation and a commendable regard for the health rights of their patrons. The ventilation of the ordinary passenger coach is even more acutely so than that of the sleeping car with its lessened air space, and remains yet to be satisfactorily solved.

But these various matters upon which I have briefly and in a way incidentally touched are sanitary considerations about which there is, and has been for a number of years, much interest taken, and in the correct solution of which many minds are even now actively engaged. Hence it is not an unreasonable expectation to indulge that the near future will reveal practical methods of combating the discomforts and dangers of combustion gases, of dust, and that the ventilation problem will likewise respond to the inventive genius of men thoroughly alive to the demands in that line. However, there is to my mind another and a hitherto practically neglected source of danger to the traveling public, to which I desire to more especially invite your attention. I refer to the constant daily, hourly pollution of the road-beds of railways with human faeces and urine. Aside from a notably valuable and highly instructive paper published some three years since by Dr. Paul Barringer, formerly of North Carolina but now of the teaching faculty at the University of Virginia, I am not aware that the profession has specifically had its attention directed to this probable source of infective danger. Dr. Barringer's article did not at the time of its publication elicit the amount of professional consideration so important a matter should have received, and though some three years have passed since its publication, I am not aware that there has been any specific attention given this matter in so far as evidenced by the development of any literature upon the subject other than the careful investigations recently undertaken by Dr. Hurty, of the Indiana

State Board of Health. From the writings of each of these gentlemen I shall not hesitate to quote freely. Dr. Barringer's attention was first directed to this subject on having the experience of being called to attend on the train a patient whom he diagnosed as having a well-marked case of typhoid fever, in which "the diarrhoea and the straining was so constant that in the language of the patient himself, he 'had been upon the stool one hundred and fifty miles' "! On casual view one might think this an almost isolated or an unusual instance of a patient's traveling about the country with typhoid fever, but when we think for a moment and recall the fact that thousands of people travel all over the country every year who almost immediately on arriving at their destinations, or very shortly afterwards, consult a physician who finds them at the end of the first, or at the beginning of the second week of typhoid fever, and that other thousands suffering an attack of fever away from home are removed to their homes or to other climes to convalesce during the post-febrile period—a time now well known when the urine is often laden with the specific bacillus and hence highly infective. The probabilities of pollution of railway road-beds with typhoid fever infection can more fully be appreciated in recalling that in the year 1905 there were used in the United States in round numbers about seven hundred million railway tickets in traveling approximately two billions of miles over the little more than two hundred thousand miles of railway in this country. The average distance traversed by each passenger was slightly less than thirty miles. At this rate something like seven thousand persons would traverse each mile of railway one time, but with seven hundred million passengers traveling during the year, it is evident that each mile of road-bed was covered on an average by about ninety thousand persons. "How long would a road-bed receiving the discharges of this number of persons be likely to escape infection?" (Barringer).

Additional emphasis is given to these facts studied in connection with the average annual death-rate from typhoid fever in the country at large, which is shown to be 46.2 per hundred thousand of population. With a well-known average mortality rate of approximately ten per cent. in all cases of enteric fever, this indicates an average annual occurrence of fully four hundred and sixty cases of typhoid fever for each hundred thousand population. Now there can be no legitimate question that the number of typhoid infected people who travel are very great. People taken ill away from home voluntarily and instinctively turn both thoughts and feet homeward, contract doctors in the employ of mining and other corporations the diagnosis being made or even suspected, encourage patients to go home when possible. The same is true of practitioners in many hotels of resort as well as other places: in fact the patient is always as a rule only too willing to accept such advice if only coupled with the suggestion of a possibly continued illness. Again we know that the years of greatest susceptibility to the contracting of typhoid fever are the years of vigorous youth and younger manhood and womanhood when the "lust of travel burns most freely in the blood," hence it is easy enough to see why so many typhoid fever patients are found traveling. Now if the proportion of sick to well among the passengers of our railways is equal to the above mentioned proportion of sick and well, that is four hundred and sixty-two to each one hundred thousand of the population at large (and it is unquestionably larger rather than less!), then with more than ninety thousand passengers to each mile, annually, we would have approximately four hundred patients with typhoid fever infection in their bodies traveling annually over each mile of railway in the United States! Would not a continuance of this for even a very few years result in the complete infection of a road-bed? And if so, what is the condition as regards danger of typhoid fever infection from the older road-beds of the country, which have been in constant daily or hourly use for a generation or more? Have we reason to hope they are by any possibility free of permanent infection? The use of the word permanent infection is advisedly, because despite the exposed position of the faecal deposits on the road-beds and the (beneficently for us) destructive influences exerted upon any contained germ life by the all-powerful influences of direct sunlight, and the free, open circulation of air in mitigating or destroying the viability of the typhoid infection, the practical fact must remain that the cool, moist soil underneath the cross-ties and ballast of the railway road-bed, covered in part daily year in and year out with the albuminous fluids of human excrement, affords a fine natural culture medium for the bacillus typhosus once planted and revitalized constantly by reinfection. Taking this view of the subject there is ample ground for the belief that the older road-beds of the country are in all probability for the most part of their entire length permanently infected, and unless some radically different method of disposing of human excrement on our railways is adopted, the country will naturally eventually be traversed in all directions with narrow lines of permanent infection

constituting an ever present menace to the public health. The practical application of this statement, as well as its reasonableness, is apparent to all, for the population of this country each year travel more and more.

Recently compiled statistics by the Indiana State Board of Health (not yet published) shows there is a considerably greater degree of prevalence of typhoid fever in railroad towns and in farm houses contiguous to lines of railway than in other places, and it is also believed that a further study of these statistics will show the families living near the railways suffer more frequently than those remoter situated. Certainly I believe there is excellent ground for the generally growing impression that track-hands show a larger percentage of cases of typhoid fever than the public at large.

The acceptance of this theory of typhoid fever pollution of the railway road-beds by human faeces and urine being discharged thereon from the sanitary closets of moving cars adds another to the methods of rationally accounting at times for the apparently obscure origin enshrouding the genesis of cases of typhoid fever, and other enteric irritations as well. Certainly all of us as practitioners attend cases of typhoid fever where so far as we were enabled to learn there had apparently been no other probable source of infection. It enables us to satisfactorily account for the development of certain cases otherwise unaccounted for. Incidentally, I might mention the fact that it tends to relieve some health resorts of the odious suggestion made at times by practitioners remote from them who upon seeing a patient ill with typhoid fever, who had at any time comparatively recently visited a resort town (even though the town is generally known to be quite free of typhoid cases) promptly advises his patient that he had contracted his disease while at the health resort. How often do our confreres in their efforts to specifically localize a source of infection for the benefit of the patient's peace of mind unjustly asperse the fair reputation of places known to enjoy a remarkable degree of healthfulness.

Again admitting the force of the suggestions herein made as to the dangers of soil pollution of road-beds, the important question becomes, what shall we do about it? The answer is evident. Stop the pollution! How? The details must be worked out by the expert car-builders; suffice it to say some form of retention closet which can be emptied at suitable distances and places without offense to the senses or dangers of local contamination. A retention closet with an appropriately constructed hopper, with arrangements for flushing the closet immediately after use with a covering of dry earth or similar material, with possibly the addition of a chemical disinfectant, would meet the indications. Cremation in the engine furnace would solve the problem as to methods of disposal in an ideal way; however, the manifest mechanical difficulties in the way of putting this idea into practical operation would be very great, possibly insuperable without much expense.

There is one other suggestion I wish to make in this connection: It is the desirability of thorough and complete laboratory studies, with proper control experiments being made in various sections of the country with the soil from road-beds of our older railways, with the view of positively determining the possible extent of the dangers suggested in this paper. I suggest that here is a most inviting field for laboratory workers, and one in which I believe the results will prove as fruitful a source of beneficent results as did the study some years ago of the soil of city streets and common dirt about stables in relation to the question of tetanus infection. If the preparation of this paper, imperfect and incomplete as it is, incites to effort along this line of scientific investigation, I shall be amply repaid for my effort, firmly convinced as I am that the continuation of the present methods of disposal of human faeces and urine by the common carriers of the country is practically as palpable a violation of all modern sanitary principles as would be the publicly emptying of night-soil upon the public streets of the cities, as was commonly practiced by our forefathers in the days of Henry the Eighth.

The Colony Treatment of the Insane and other Defectives.*

By Dr. P. L. Murphy, Morganton, N. C.

The subject of this paper might be called employment as a means of treating and caring for the insane and other defectives, the colony being the means of finding agreeable and profitable work for the inmates.

To many of you a description of what is meant by the "colony treatment" is needed to fully understand the subject.

As the expression is used in this paper, and as it is generally understood, it means the erection of buildings some distance from the central hospital plant and placing farm working patients there, to be under the control and management of the hospital officers.

Without discussing the origin of the idea, and with no reference to Gheel, it is sufficient to say it was begun in Germany in the sixties, and that it has slowly found its way into other countries.

*Read before the North Carolina Medical Society, Charlotte, N. C.

FIRST BUILDING AT THE COLONY.

Such a colony was established in connection with the Morganton Hospital three years ago, or rather it was ready for occupancy about that time. It took several years of talk to get the idea adopted, and as many more to get the colony built. The plan of conducting it by the Hospital authorities was largely expertimental, and was made to suit the people of western North Carolina, but it is after all a modification of the original German conception.

The first building was for 30 men with rooms for a man and his family, the man to have general supervision of the place and the wife to cook and do the general household work. Afterwards a small cottage was built for the manager and his family, and his rooms were used for patients, and later still another building was erected, so that now 75 patients can be accommodated. It would have been much better to have limited the number to 30 as first intended. No single colony plant for the insane should much exceed thai number. As many colonies as are needed may be had if land is sufficient, the number depending on the size of the hospitals, as only a certain proportion of patients, about 25 per cent., can be thus cared for, at the outside 40 per cent.

The colony buildings, out-houses and surroundings at the Morganton colony, were made as near as possible like the farm houses in this section of the State. This was done to give it a home-like appearance, and the management has been to make each one of the patients feel at home; they are free to sit on the porches and the lawn in the summer, in the sitting room before open fires in the winter. They smoke, have games, read or do what pleases them during these hours of recreation. They have their own garden, orchard, vineyard, berry patches, poultry, pigs and cows, which they attend to. Every effort is to make each one feel that these things are his own, he can gather berries and pull the fruit when he wants it or as he pleases. Every one is expected to do something if no more than pick up chips for the cook. The first party of patients sent to the colony—about 15—were quiet, industrious men, who were expected to be the nucleus of the organization. After these became accustomed to their new surroundings, others who were quiet and who had some remnant of mind left, but who did little or no work, were tried. These readily dropped into the ways of those who had preceded them, and who had set the pace. Further experiment was made by sending those who seemed incurably demented, incapable by reason of their weakened minds of doing any kind of work. Most of the last mentioned had been residents of the Hospital for years and years, in whom the last vestige of hope for any improvement had long vanished. Strange as it may seem to you, as it did to us, acquainted with these men and their disease, they immediately

TWO COLONY BUILDINGS.

went to work and are today profitably employed. They have gained in health and self-confidence; they are happier because they feel there is yet something in life for them.

It may occur to some to ask why these men had not been sent out to work before and given an opportunity. It has been the invariable custom since the Hospital opened to try to induce every one to engage in some kind of employment, and it had been tried repeatedly with these very men with complete failure. To conjecture why they were willing to work in one place and not in another might be profitless, it is sufficient to know it is true.

After the work was well under way it was strange to see the development of the different fancies of the different men. Each one was allowed, as far as possible, to follow his own inclination and to select his own work. One fancied painting and white washing and building fires under the heating apparatus. He studied economy in the use of fuel as much as the average head of a family, and is as intelligent in his work as could be expected of any ordinary man. Another patient has become greatly interested in poultry, and shows more than ordinary intelligence in following his bent. He reads journals on poultry, and not only builds coops, box nests, &c., but has actually invented several useful contrivances. Another hauls wood to the kitchen in a little wagon he made himself, and so on almost indefinitely.

A brief report of two cases will partly illustrate what has been done. The following is quoted from a report to the Board last December, and is the case of a boy "who at 13 years of age came to the Hospital in June, 1895. He had a form of insanity (Dementia praecox), which rarely improves, indeed, its course is generally to deteriorate. This boy was no exception to the rule, and he grew worse and worse until hope for any improvement had been given up. Three months ago he was sent to the colony, but it was considered a desperate chance. To the astonishment of every one he immediately began to improve, and this has steadily gone on until today he is a strong, vigorous young fellow of 23, full of hope and energy, whereas when he went there he was dull, indifferent and listless; he never inquired of his home or home people, and seemed to care for nothing. Recently he has written home telling of his marvelous improvement and of his joy in life. He testified as 'one risen from the dead', after ten years of mental darkness. It is not certain that the improvement will continue, in fact, it is not expected, but even if he improves no more, great good has been accomplished in relieving this young fellow of such suffering as we shudder to think of." Six months after this report was written, this young man had gained but little, and it is probable he is as

GENERAL VIEW OF COLONY.

well as he will ever be. He enjoys life as much as the average man, taking part and interest in base-ball and other amusements we are able to furnish our people.

The second case is of a man who was committed to the Hospital in November, 1899, this being his second admission. He complained of great discomfort in his head, which he described as being unbearable, so much so that he begged to be killed. His appetite was poor, he was anaemic and greatly run down in health, and evidently was a great sufferer. Every effort to relieve him failed. We were sure if he could be induced to exercise he would improve, but nothing we could do would cause him to take the slightest interest in anything. He was finally forced to go out with the working party, but he would lie on the ground complaining of his head. He was a few months ago sent to the colony with nine other men almost as bad as he. To the amazement of us all the man went to work, his health improved, the pain and discomfort disappeared, his face is ruddy, and he gives every evidence of health and vigor. He works cheerfully, seems perfectly satisfied, never complaining of any bad feeling, and is as comfortable as he can be.

These two cases are only two of many as unpromising who have been greatly relieved and some few cured by the "colony treatment."

All this seems so simple, and is so obviously the right course that we wonder why it had not long ago been tried.

Two ideas are prominent in this system, the first to find agreeable, healthful employment for the patients and to give them a home.

The working class, while too defective to take up the burden of life, are yet appreciative of their surroundings and of most things that make life happy to the people in the outside world. They require the minimum amount of care and discipline, and with this given they conduct themselves as well, indeed, better than the same number of sane men. Some under this treatment recover that otherwise would not, but the majority must remain, this being their refuge and their home. How much need, therefore, that every effort should be put forth to make it pleasant to these afflicted men.

In general hospitals and institutions for children in reformatories we have a different class to deal with. A large number under one roof is not so objectionable, but these cases of chronic insanity are not children in whom the desire for a home is small, nor are they malefactors in prison for punishment.

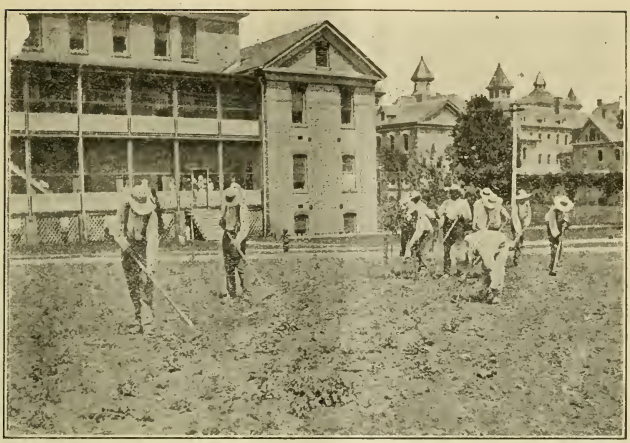
You will pardon a little digression, which after all leads to this subject from another and a practical standpoint.

In North Carolina there are not less than 4000 white insane, of this number 1500 are in the two hospitals, leaving 2500 uncared

PEACH ORCHARD AND GARDEN.

for by the State. To properly house all these people means the expenditure of a million dollars, and the annual cost of maintaining them will be $500,000. It is well then to consider carefully how this burden on the tax-payers may be lightened. Without discussing the question of the increase of insanity, there can be no doubt that there is an increased demand to have these persons cared for and properly so. All insane

PATIENTS WORKING RASPBERRIES.



CULTIVATING STRAWBERRIES.

persons are dangerous in some degree to their neighbors, more so to themselves. Insanity is the cause of many suicides, while sexual crimes, arson, assaults and impostures are often committed by those mentally deranged.

Too often families are ruined by some insane member, the bread winner having to devote his whole time to the control of wife or child, or a crime is committed and every energy and the savings of a life time must be devoted to the cost of courts. Whole communities are frequently terrorized by an insane person, and the lives of the women and children made miserable.

Only a few recover at once or die. They live on for years not only imbecile and helpless themselves, but a burden on the family and community, a severe drain which must tend to weaken the general welfare of the State.

These are sufficient reasons for you as physicians, men of standing in your respective communities, not only to make yourselves familiar with this disease in order that you may prescribe intelligently for those suffering from it, but to use your influence, which is great, to see that proper provision is made for them by the public.

Much insanity is caused by alcohol and drugs. This touches you more closely, for you are largely responsible for these habits. You may do something by preventing unwise marriages of those whose heredity is not good.

It should be your special province to recognize dangerous symptoms in time, and by prompt action prevent suicides and accidents, and to send to the hospitals at once these patients who have infinitely more chances to recover when placed under the care of competent alienists.

The conclusions we reach are that 2500 white insane people in North Carolina are uncared for, that a great outlay of money will be required to build for this number and after that the never ending expense of maintaining them begins. If it can be demonstrated that the colony system is the best and the cheapest, it should be adopted.

There is an end to the willingness and even the ability of the tax payers to provide for the defectives in expensive hospitals and asylums, and it is clearly the duty of those who have these matters in hand to use proper economy. What is done by the Legislature will depend on the demand of the people and the wisdom of the Legislators. It will require great deliberation and the wisest action to solve this question.

In North Carolina no more hospitals ought to be built at present, those now in existence ought to be enlarged if possible.

Unfortunately, at Morganton no more land can be purchased and that institution cannot, with advantage, be greatly increased in size. The last opportunity to buy land there has been allowed to pass. This s to be deplored, for the plan there has been so successful, and it is so well understood that much was hoped for in the judicious extension of these colonies.

Much more might be said on the general subject of caring for the insane, but time forbids. Perhaps at some future time this will be taken up and discussed.

Hospitals for the insane cannot properly care for epileptics or idiots. I used the term

PLAYING BASEBALL.

idiot in the sense in which it is defined by the North Carolina Statutes, "a person born deficient or who became deficient before the completion of the twelfth year of age."

Many of these defectives are capable of doing common labor, and can be made very nearly self-sustaining if properly managed in such a colony for the insane as has been described. In many of the States where this is tried, it has been successful. In North Carolina, where we have such good climate and where land can be purchased cheaply, more can be done than in other less fortunate communities. I believe in the cotton and truck section of the State such a colony could be nearly self-sustaining; but leaving that out of the question, there can be no doubt it is best for these people to live out door lives with proper employment. I would like also to enlarge on this feature of my paper, but time will not permit.

I trust, gentlemen, that you will become enough interested in these subjects to give them your hearty support. If you do, then the labors of those of us who are immediately responsible will be greatly lightened, and these afflicted fellow-citizens will be happier and your State will be a better State.

The Moist Surgical Dressing.*

By B. R. Graham, M. D., Wallace, N. C.

In considering the advantages of the moist surgical dressing, it may be stated in the outset that in the treatment of comparatively small and simple wounds, such as the ligation of arteries in continuity, in herniotomy, or in the extirpation of small tumors; wounds which we can reasonably assume are sterile, we may hermetically close by dry dressings with the almost universal assurance of primary union. But in the treatment of the vast majority of wounds presented to the surgeon we find the conditions very different. The wound is either already suppurating, or if of recent origin is covered with dirt, coal dust, or oil, and sometimes with various materials for the control of hemorrhage. It is in this class of wounds that the moist dressing finds its special adaption.

Of the various materials used for dressings, gauze or cheese cloth first selected by Lister himself has remained the most highly prized and most universally used.

To answer the requirements of modern surgery, dressing materials must possess the following qualities.

(1) They must be absorbent to a high degree.

*Read before the recent meeting of the North Carolina Medical Society at Charlotte, N. C.

(2) They must be protective and non-irritative.

(3) They must be antiseptic.

(4) They must possess the quality of remaining aseptic, even if saturated with discharges.

(5) Facility of application and of removal.

In the light of these requirements let us briefly consider the relative merits of the two forms of dressings; the moist and dry.

We were formerly taught that we should exclude moisture from our dressings chiefly because moisture was thought to furnish more favorable conditions for the development of the germs of inflammation. But experience has taught that these strenuous organisms are not so easily conquered, and further that one of the most efficient means of combating their invasion is by free drainage.

Drainage from the earliest days of surgery has been insisted upon as one of the chief factors of controlling inflammatory and suppurative processes, and naturally those dressings which promote free drainage are manifestly superior to those which more or less retard it. We have all seen the dry dressings become clogged with blood and other exudate and no longer afford drainage, allowing the wound to be bathed in pus which cannot easily escape.

When we have to deal with suppurating wounds of this character, with secretions which are thick and viscid and often containing considerable masses of decomposing detritus and slough, it is evident that evaporation and inspissation become a drawback. As soon as evaporation leads to crusting, the discharges become sealed, and retention with all of its harmful consequences results. This condition is manifestly impossible with the moist dressing.

In considering the next quality which the ideal dressing should possess, that of non-irritability, we find the moist dressing far superior to the dry. A dressing which is at all times soft and pliant and capable of adapting itself to the contour of the tender structures without friction and one which never affords mechanical irritation by dried and hardened discharges is much to be preferred to one not possessing these qualities.

Granting that all dressings are aseptic we are chiefly concerned with the best method of maintaining this asepsis, even when saturated with discharges. It is clearly evident that an aseptic dressing saturated with an efficient antiseptic theoretically and practically fulfills this requirement.

In the matter of removal we find the moist dressing again superior to the dry. The dry dressing of iodoform gauze becomes tightly adherent and almost impervious to water, and it is with difficulty softened and removed. These conditions are entirely obviated by the moist dressing.

The antiseptic solutions used to moisten the dressings may be varied to meet the fancies of the surgeon. For all practical purposes a saturated solution of boric acid in sterile water, or a solution containing equal parts of above and grain alcohol are as effective as any and are to be recommended in question of economy. The dressing may be protected and evaporation prevented by oil silk, or equally as well and more cheaply by oil paper.

In the treatment of the majority of wounds the application of the moist dressing, prevention of evaporation by impervious coverings, the frequent change of dressings, accompanied by a thorough cleansing of the wound, represents the order to be followed.

Malaria as Seen in Gaston County.*

By Dr. T. C. Quickel, Stanley, N. C.

Malarial manifestations are very prevalent in some localities in Gaston county, and in these localities only a minority of the population escape infection. While it is not very fatal, it incapacitates more adults during the summer months than any other disease that prevails in our county. It is manifested in the remittent and less often in the intermittent type, and very rarely, if at all, in the pernicious form. A true case of hemorrhagic fever is an unusual occurrence in Gaston county. During my six years of practice in a section where malaria is quite prevalent I have not encountered a single case of pernicious malaria. That it should be so uncommon in Gaston county has led me to believe that there is some factor in its etiology which we do not comprehend, and which is unable to develop in our highest altitude or different soil as contrasted with the more alluvial and marshy regions of our State. That hemorrhagic fever is due to the same form of malarial plasmodium as the remittent and intermittent types, without any additional factor, I am unable to believe. If this is the true cause and there is nothing specific in its etiology, why should it be a very rare disease in Gaston county?

As I have already stated malaria in its less malignant form is our most common disease. Our people have hard chills, high fever, and profuse perspiration, which indicate that they are heavily loaded with malarial poison. We have some of those wise and stingy souls, who either believe that they can cure themselves or wear out the

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*Read before the North Carolina Medical Society at Charlotte, N. C.

disease without seeking professional instruction, who go on for weeks and months without the germs or their poisons being eliminated from their blood. They show by their general appearance a saturated condition. We see evidences of great destruction of the hæmoglobin of the blood, and other evidences of the destructive work of malarial poisoning. We have undrained swamps and acres of marsh lands, with quantities of decaying trees and vegetable matter in them, that produce a host of mosquitoes; we have villages and thickly settled communities near these; every condition favoring the production of malaria in its most severe form, if there is no other factor in its etiology other than an unusually heavy invasion of the malarial organisms with which we are at the present familiar. There must be some specific factor in its causation. If this is not the case I do not see why we should not have malignant malaria in Gaston county in the same proportion as they do in the more alluvial portions of our State. Evidently there is something specific which has not been recognized in its causation, and whatever it may be, whether it is a distinct form or a special host for its transmission, or some peculiar climatic condition, it does not invade the higher altitudes of our Piedmont regions.

That there is no systematic effort being directed towards the prevention of malaria in this part of our State is to be deplored, and especially so because of the ease with which it could be curtailed. At least half of the breeding places of the Anopheles could be destroyed by a small amount of work on the part of our land owners. We often find small ponds of stagnant water near the homes of our rural people that could be drained by only a small amount of work. Small pools near where the stock are watered, old cans, old buckets, and tubs are allowed to remain about the premises, and are filled with water after each rain; various other small quantities of water which seem insignificant, but still large enough to send forth colony after colony of malaria carrying mosquitoes. Often times these small quantities of water are the only places where they are propagated near the homes of our malarial patients; and with a little care all could be easily destroyed.

The laity needs to be instructed regarding the importance of carefully supervising the destruction of these various breeding places of the inoculating agent, and I am encouraged to believe that they would do a great deal of effective work in the prevention of this very prevalent disease.

Treatment.

That quinine is a specific in the remittent type of malaria I have found to be correct. And 15 grains given in divided doses during the five hours just preceding the time for the expected chill is usually sufficient to prevent its occurrence. When we have prevented the chill and subsequent fever I direct a tonic of iron and arsenic. I also direct that 15 grains of quinine be taken every seventh day for four weeks, after which if there has been no recurrence I consider it safe to allow its discontinuance. In giving quinine I wish to emphasize the importance of having it in a form easily disintegrated, so that the stomach may have a fair chance to dissolve and absorb it. To give it in solution is the most certain, and when I am anxious to secure rapid and certain action I employ it, but under ordinary conditions the powder or freshly made pills will dissolve and be satisfactory. Stock pills and capsules where there is a deficiency of the secretions will often prove a disappointment. The intermittent type does not yield so readily to quinine after the first week, hence the importance of pushing this remedy during this time.

The Diagnostic Value of the Leucocyte Formula in Pertussis.—Churchill (Journal American Medical Association) mentions the importance of an early diagnosis of pertussis, both because of the serious character of the disease and because of its dissemination in the early stages. The writer has collected 100 cases of whooping cough in which differential blood counts had been made, with the view of determining the diagnostic value of such a count. He believes that a general leucocytosis is present in almost all cases of whooping cough; that a lymphocytotis is found in about 85 per cent. of cases at some time during the course of the disease; that a lymphocytosis is found even more certainly during the early or catarrhal stage, over 90 per cent. showing the phenomenon at this time. The presence, therefore, of a lymphocytosis in a child with a hard, persistent cough is a factor of great diagnostic value. It is also of prophylactic importance, inasmuch as it can be used to prevent the spread of the disease by leading to the prompt isolation of the patient. The age of the child must be taken into consideration in estimating the importance of the leucocyte count.

Gas from cocoanut oil, says the Medical Times, has been adopted by the Philippine officials, owing to the Oriental coals being expensive and deficient in gas-producing qualities. The oil is fed slowly into strong cast iron retorts after the latter are brought to a red heat. This produces a high quality of illuminating gas quite free from smoke and tar.

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SOURCES OF ERROR IN URINARY ANALYSIS FROM DRUGS.

In recent years testing the urine for albumin, sugar, phosphates, chlorides, sulphates, urea, etc., has become a routine practice with most physicians, but little attention is given to the errors that may arise from the patient taking medicines which are eliminated by the urine in a modified form, giving reactions which simulate those of other pathologic or normal constituents. The effect of drugs, vegetable, mineral and synthetic, on the urine of those to whom they have been administered is a matter of great importance to the diagnostician and may be the source of grave errors, especially in the examination for life insurance. The complexity of the synthetic derivatives as they are formed from a comparatively small number of primary groups is very complex, and their decomposition products combining with organic secretions are eliminated in the urine in combination with the bases and acids found in health and disease; others are eliminated unchanged or combined with normal constituents. The wide spread use of hypnotic and headache powders by the laity render the liability of error from their presence in the urine very great, some of them reducing Fehlings solution, others being precipitated by nitric acid, which would mislead the examining physician to a serious extent.

Certain drugs as alkaloids, essential oils, and resins produce a reaction with nitric picric, acetic acids, Tanret's solution, etc., almost identical with that given by traces of albumin; the phenol compounds and synthetic alkaloids will, if taken in sufficient quantity and over a period of time, produce an albuminuria which disappears on stopping the drug. Of the alkaloids cinchona, caffein, morphine, piperidine and piperazenine are the only ones likely to be taken in sufficient doses to produce a reaction in the urine.

The fallacies that may occur in the testing for sugar are more numerous, and great care should be exercised in making a diagnosis of diabetes when the quantity of sugar eliminated is small. There are more than fifty synthetic drugs that will reduce copper solutions if taken in large enough doses. Besides these a concentrated urine, or one containing a high percentage of uric acid or creatinin, will reduce Fehlings to a marked degree; it is probable that the most reliable test for sugar is fermentation. Thirty grains of the commonly used synthetics of the acetanilid and phenetidin group will produce a marked reduction of copper in the morning urine. Salol, the napthols, benzoic compounds and some of the phenols and cresols will impart reducing properties to urine after a few days use, the amyl derivatives, antipyrin, chloral compounds, antipyrin derivatives all drugs having an active deoxidizing nucleus, which will often cause a reduction of both copper and bismuth a few hours after administration. Chloral and its compounds, aldehydes, phenylhydrazine derivatives, affect the polariscope tests for sugar, as well as causing reduction of both copper and bismuth. After anesthesia the urine often reduces Fehling, especially if chloroform has been used as an anesthetic.

Rhubarb, cascara, senna and santonin cause a deep yellow coloration of the urine, which may be mistaken for bile pigment. The guiacum test for blood is valueless if the patient has been taking iodin in any form.

It is evident from the above that before placing confidence in the ordinary chemic tests used in urinary analysis it is of importance that the patient should not have taken any medication for at least 24 hours before the test is made, and that careful inquiry should be made as to diet.

THE URINE IN HEPATIC DISEASE.

The hourly variation in the elimination of urine, of urea and of pigments depend largely upon the diet, and in health is regular, but in diseases of the liver there are many variations which are of diagnostic value. Under normal conditions the urine excreted during the day is larger in quantity than during the night, especially is it increased in the hours following a meal, but should there be increased tension in the portal system the absorption of water from the intestine is interfered with and the normal increased elimination does not take place. At the same time the night urine may be much increased at the expense of the day excretion; with this inversion of the normal rhythm of quantity there is also an inversion of pigment elimination, the night urine being of a lighter color than that excreted during the day. The post prandium urine is usually lighter in color, but in hepatic insufficiency the urine passed after meals is often deeply colored, showing that the stimulating effect of digestion upon the biliary secretion has caused more pigment to pass into the circulation.

This inversion of the secretion and coloration occurs in other diseases, especially those of the heart and kidneys. In the liver

it signifies a chronic condition, such as cirrhosis or a functional trouble of the biliary function, catarrhal or lithaic icterus, or icterus due to hepatic congestion of cardiac origin. In hepatic insufficiency there is usually a decreased elimination of nitrogen due often to a decreased diet; the urea nitrogen may fall to 70 per cent. (40 per cent. is on record in a case of phosphorous poisoning) of the total nitrogen while the proportion of ammonia nitrogen may be much increased. Indican is present in excess, as is also urobilin; the latter's presence in the urine in appreciable quantities being proof positive of hepatic insufficiency. The total carbon in its relation to total nitrogen is reduced, while bile pigment may be present in traces. In hepatic congestion the urine is diminished in quantity, the sp. gr. is increased, the color varies with the amount of bile pigment and urobilin present hypoazoturia is the rule; urid acid is increased, also the chlorids and phosphates, the latter having been reported as being eight times the normal in one case; albuminuria is not uncommon. Alcoholic hypertrophic cirrhosis shows the inversion of the rhythm of the elimination pointing to portal hypertension; the urine is hyperacid, highly colored, the urea diminished, uric acid and ammonia increased, phosphates and chlorids diminished, carbon increased, tyrosin, leucin, albumin, peptone, glucose may be present. The toxicity of the urine is much increased, in alcoholic atrophic cirrhosis the same conditions are found, but to a more marked degree.

In icterus the urine is diminished in quantity to 250-500 ccm., highly colored from the presence of bile pigments and acids; the urea elimination is reduced with a general retention of waste products of metabolism, which are freely eliminated as soon as convalescence begins, the bile pigment and acids disappearing also, but the amount of urobilin remains very large for sometime.

From the condition of the urine in hepatic disease it is evident that a sufficient excretion of normal bile is of the utmost importance; to obtain which the administration of sodium glycocholate mass is specially indicated, the salt being the natural solvent for the various substances to be eliminated, and at the same time being the only true cholagogue that we have at our disposal.

THE TRANSPLANTATION OF ORGANS AS A SURGICAL POSSIBILITY.

That transplantation of vital organs from one animal to another of a different species is possible, has been recognized for some time.

That the procedure might be used in surgery and that by its means diseases now considered of necessity fatal, might be rendered amenable to surgical treatment, has been the thought of a long line of investigators.

The work done in this direction, though small in amount, has been productive of some results that, taken as a whole, seem to point to the certain development of homo and hetero transplantation of organs as regularly recognized surgical measures.

The most complete set of experiments are those carried out by Carrel and Guthrie, and now being continued by the same investigators. Their first work was the transplantation of the thyroid gland of the dog, by uniting the principal artery and vein of that gland with the carotid and external jugular respectively.

The attempt was a failure owing to errors in asepsis. About the same time they transplanted the kidney of a dog into the neck of the same animal. The extirpated kidney with its vessels and ureter was introduced into a cervical wound; the renal artery joined to the carotid and the renal vein to the jugular, by end-to-end anastamosis. The distal end of the ureter was united to a small opening in the skin, located a little above the sternum, the circulation was reestablished and seemed to be normal. After a few hours a clear fluid began flowing from the ureter, but sepsis also prevented the further observation of this experiment.

Recently the same observers have reported marked success in the surgical and physiological results of their endeavors. From a critical standpoint it is difficult to understand how such procedures can ever become of direct clinical value, in the light of our present knowledge of embolus and thrombus formation.

The comparatively large number of deaths resulting from pulmonary and cardiac embolism which follow ordinary operations involving large and important blood vessels, would naturally lead to the supposition that deliberate anastamosis of veins and arteries of different calibre and from different animals, must be followed by the production of thrombi at the point of anastamosis, even should complete stasis and coagulation be avoided.

The intima of arteries is of so delicate and fragile a character that the slightest trauma here is usually followed by unfavorable complications. Thrombosis in general may be caused by one or more of the following factors; alteration of the blood current, change in the vessel walls, or alteration of the blood itself. Following an arterial anastamosis, then, we have at least two of these factors active, and the result seems obvious.

The above difficulties all apply to auto or homo-transplantation. Now, when hetero transplantation is considered, many more

complications are to be encountered. For surgical purposes hetero-transplantation would, for obvious reasons, be the only available method.

It is, of course, true that in many, indeed, in the vast majority of cases, the blood serum of animals of a given species is hemolytic and toxic to animals of another species. It is also well authenticated that blood serum under similar conditions is capable of producing a distinct coagulation ferment with the resulting intra-arterial clotting. If, in addition to these two deterrant agents, the actual physical difficulty of performing such operations upon the human being be taken into account, with the tremendous amount of room for errors in asepsis, together with the extreme and hitherto absolutely unsatisfactory technique of anastamosis of large blood vessels, it is to be feared that while it remains a desideratum to be hoped for, hetero-transplantation of organs seems a far distant boon to humanity.

MIXED INFECTIONS WITH TYPHOID AND PARATYPHOID BACILLI.

The frequent reports which we see of a mixed infection of the Bac. Typhosus and one or the other of the paratyphoid bacilli are probably due to the fact that these organisms will mutually interact with reference to anti-sera. Only a very few cases of true mixed infection are on record, while there are many authentic reports of typhoid fever blood reacting to paratyphoid bacilli as well as to the true typhoid organism. The reverse is also known. That mixed infections can occur is possible, of course, but the probability is remote. One infection may be engrafted upon another, and Brion and Kayser (Deutsches Archiv. f. klinische Medizin, 1906, LXXXV, p. 525) report a true 'A' paratyphoid infection followed by a typhoid bacillus infection. The blood of the patient during the first part of the illness agglutinated only the 'A' organism, while later in the attack when the Bac. Typhosus was the causative factor, this blood clumped both the typhoid bacillus and the 'B' paratyphoid. This coagglutination was not mistaken for a mixed infection since it has been shown by many authors that the Bac. Typhosus and the Bac. Paratyphosus 'B' will often react to the same typhoid blood, albeit the latter in somewhat lower dilutions. Therefore, should a blood react alone to the 'A' paratyphoid organism it is suggestive of such an infection. The 'B' paratyphoid reaction often occurring in typhoid blood is only suspicious when it persists in higher dilutions than the reaction with the Bac. Typhosus. If a blood agglutinate the typhoid bacillus persistently at a dilution of 1-100 and the paratyphoid bacillus in persistently lower strengths, the diagnosis usually rests with the former. It is sometimes important to establish this diagnosis since infections by the Bac. Paratyphosus 'B' are more acute and have a slightly higher mortality than typhoid cases, probably because this 'B' organism is nearer to the meat-poisons biologically.

MEDICINAL TREATMENT OF GALL-STONES.

The theories of the formation of gall-stones are still exercising the pathologists, while the problem of their solution in situ remains unsolved by the clinician, who is turning his cases over to the surgeon.

Cholesterine gall-stones appear to be the result of an infection, producing an inflammation of the walls of the gall-bladder, and a reduction in the total solids of the bile, especially of the bile acids, with an increase of cholesterine.

Herter and Wakeman have found that they produced the same results by injecting mercuric chloride into the gall-bladder of starving dogs, showing that bacterial infection is not necessary to produce a condition of bile favorable to the formation of gall-stones.

The questions arise, why should an inflammatory condition of the gall-bladder reduce the quantity of bile acids, and in what part of the organism are the bile acids formed? Crofton has produced both bilirubin and glycocholic acid by the action of hemoglobin in the presence of glycogen or glucose and trypsin; he has also shown that the bile acids exist normally in the blood in very small quantities. It seems improbable that the bile acids should be formed in the gall-bladder, it being more likely that they are formed in the liver or in the blood in very small quantities. As they are reabsorbed from the intestinal tract a very small amount is required to keep up the quantity necessary under normal conditions to hold the cholesterine and bile pigments in solution.

The liver contains the bile acids, at least that quantity which is reabsorbed from the intestine, and it is possible that the newly formed acids are excreted into the gall-bladder from its mucous membrane, so that any inflammation of that membrane prevents their excretion. If this is so, inflammation of the gall-bladder would gradually reduce the quantity of bile acids in the bile, only that which was reabsorbed from the intestine being available, which would gradually decrease in quantity.

Whatever may be the method by which the bile acids are reduced in quantity in gall-stone, the fact is patent that if there is a sufficient quantity of glycocholate in the bile, the cholesterine will be held in solution and gall-stones will not be formed. Austin

(Journal of Medical Research, 1902) analyzed the bile from fistulas, the result of operations for gall-stones when there was complete occlusion of the duct. In three analyses he obtained the following results:

	Total solids.	Mucin.	Water.	Cholalic acid.	Cholesterine.	Lecithin.
"A"	15.28	1.66	984.7	0.061	0.278	0.710
"B"	14.19	...	985.8	0.092	0.243	0.736
"C"	10.68	1.32	986.3	0.048	0.323	Trace.

Showing that cholalic acid is from one-third to one-eighth of the cholesterine, while according to Hammersten and others, normal bile contains twelve to thirteen times as much cholalic acid as cholesterine. It is also worthy of note that the mucin is only one-fourth the normal amount, showing that the gall-bladder was affected. The above analyses of Austin seem to prove conclusively that cholesterine gall-stones are the result of a deficiency of glycocholic acid.

It naturally suggests itself that the prophylaxis of gall-stones is the administration of glycocholate of soda by the mouth, since it will then be absorbed from the intestine, entering the gall-bladder from the liver, and hold the cholesterine in solution. The question as to the possibility of dissolving gall-stones in situ has recently been investigated by Vaughan Harley and Wakelin Barratt (Journal of Physiology, 1903). They inserted large gall-stones into the gall-bladders of healthy dogs with antiseptic precautions, and found that in periods from six months to one year the gall-stones had entirely disappeared, showing that the healthy bile of the dog is capable of dissolving cholesterine stones. They also inserted gall-stones into the gall-bladder, and at the same time produced cholecystitis, with the result that the gall-stones remained unaltered. Unfortunately no analysis of the bile was made in these cases, but from the work of Herter and Wakeman and the analyses of Austin it seems certain that in the cases where cholecystitis was produced there was a deficiency of bile acids, as in no other way is it possible to explain the solution of the stones in the normal bladder and their remaining undissolved when cholecystitis was present.

From the above experiments it is evident that by the administration of glycocholate of soda it must be possible to dissolve gall-stones in the bladder, and even when cholecystitis is present glycocholate of soda is indicated not only as a prophylactic but as a solvent for stones already present, and that in those cases only in which there is occlusion of the gall-duct is surgical interference permissible.

CONGRESSMAN E. Y. WEBB'S "PATENT MEDICINE BILL" NOW A LAW.

One of the final acts of the houses of Congress was the enactment into law of the now famous Pure Food Bill, and while shorn in Committee and the perils of protracted debate of some of its most beneficent provisions, it still remains a wise and timely piece of national legislation and a substantial victory for the medical men of the country, who have for some years past in medical journal articles, in society discussions, and last, but by no means least, in the physician's way of influencing and developing public sentiment, in the daily walk and conversation of some thousands of practitioners throughout the length and breadth of the United States.

Congressman E. Yates Webb, of the Ninth N. C. District, early in the session introduced and waged valiant warfare to secure the enactment of a measure compelling the manufacturers of secret medicines to publish their formulae on the package so that all could be advised of the character of the preparations too often containing alcohol and other narcotics in dangerous quantities and masquerading as simple, harmless "blood purifiers," "liver medicines," or "nerve tonics." This bill immediately became the subject of most vigorous attack from the representatives of the various proprietary interests and their active lobby at the Capitol. On the other hand active medical men from all parts of the country expended their energies in its support. Among the latter was the efficient Secretary of the North Carolina State Medical Society, whose Remarks before the Committee of Congress was reproduced in these columns in our June issue, and were also made a part of Mr. Webb's printed speech in advocacy of the bill. Finally Mr. Webb succeeded in having his measure incorporated as a section of the Pure Food Bill, thus securing added strength for its enactment.

In the vissicitudes of debate and enactment in the two Houses of Congress the Webb Bill was shorn of many of its most vital provisions, by way of elimination and amendment. For instance "sufficient alcohol for preservative purposes" was permitted without any recognition of the same in the published formulae, and similar shrewdly phrased passages inserted in the bill at the option of the "patent medicine lobby." Mr. Webb watchfully looked after the measure closely, and in the final conference had the pleasure the day before adjournment of seeing each of the vital points of his measure, for which he had so vigorously contended, re-inserted in the bill just before it became a law a few hours prior to the final adjournment of Congress. Under the provisions of the law, as finally enacted, alcohol, morphine, cocaine, and all other "habit-forming drugs" are, when sold in medical compounds, necessarily compelled to have their presence and quantity announced in the

printed formula on the label of the container. This special measure of Mr. Webb's was declared in the final debate upon the Pure Food Bill, by the distinguished Illinois member, who had the final passage of the bill in charge, to "be the most important provision in this whole bill."

All honor to Congressman E. Yates Webb, of the Ninth N. C. District, a faithful, earnest worker, and a man whom the medical profession will remember for his persistent and successful work in this particular instance. It is a great pleasure to note his unanimous re-nomination in his District convention.

INSURANCE FEES AGAIN.

It would seem that after all that has been said in the past two years by both doctors and insurance agents on this topic that the subject would be almost thread-bare, and it does not appear that the end of the contention is quite reached yet. The State Society of North Carolina has now for two successive sessions emphasized its opinion that all physicians should receive $5.00 for all old-line insurance examinations, and recommended to the competent county societies that they so enact. A very large number of them have done so, more are doing so; and it is very apparent to one who keeps in touch with the professional pulse that the insurance people will come to the $5.00 fee —always provided the profession remain firm in their determination not to accept less!

This we believe the doctors of North Carolina will do. We remind them not to be misled by the suggestion being made by many agents to the effect that it is purely a "local fight in the Carolinas." It is emphatically an affair of national importance, and in the past two years has received attention in the meetings of almost every State Medical Society in the nation, and the recent session of the American Medical Association took the matter under careful consideration, and a committee will report at the next session.

Doctors will not allow themselves to be duped by statements to the effect that "we now have the signatures of over 200 North Carolina doctors who will agree to examine for $2.00 and $3.00 just as soon as matters can be so arranged in the county medical societies that they will not be ostracised professionally." Nor will intelligent physicians who think permit themselves to be hood-winked into signing a promise to examine for less than five dollars with the presentation to them of a certificate "signed and sealed" at the home office of the company in the East setting forth the fact that the doctor is "chief examiner" for his town, but at the same time cunningly binding the doctor hand and foot to examine at the company's reduced rates, and in exchange tendering his professional vanity the showy tinsel of "chief examiner," which is not worth to the physician the paper it is written upon. That the recent legislative enactments in New York, following quickly on the heels of the colossal insurance frauds, have gone to an absurd extreme in the limitations imposed on companies writing new business in that State as regards the amount of the first year's premiums, which may legally be spent by the company in securing new business, all who give study to this question will admit. On the other hand students of the questions at issue will insist that if the New York legislature has trimmed the companies a trifle close in this particular on new policies written in that State, that it ill-becomes the companies to attempt to recoup their losses at the expense of careful, scrutinizing medical examinations of all applicants for insurance protection. And despite claims to the contrary, cutting the fee to less than $5.00 means a corresponding reduction in the value of the examinations made. Again we contend that the profession stand square and firm for their rights and the honor of the profession, confident of winning in the end.

TRAUMATIC EPILEPSY.

Injury to the head may lead to recurring convulsions which leave adhesions, tumors, compressed areas or anything that may act as a foreign body in the cranial cavity, and is undoubtedly a cause of epileptic spasm. In these cases the foreign body occupying the space of a vascular area, destroying more or less the function of a certain portion of the brain, obliterates the veins and capilliaries; the local cerebral tension will then be equal to that of the arteries which normally feed the affected area. In the obliterated area there will be a complete stasis of the blood. In the border areas the capilliaries and veins will be more or less compressed in proportion as the increased local cerebral tension is transmitted to the brain substance. In consequence of this compression the blood pressure will be raised in these capilliaries and veins and the blood flow lessened. In the more and more distant areas of the brain the circulation will approach more and more to normal and the blood flow may even be increased, the blood taking the channels of least resistance; this may produce a congestive oedema which will act as a further foreign body in the cranial cavity. Supposing there is a compression or thickening of the dura or anything acting as a foreign body in the cranial cavity, there will be a compressed area of

brain in which the circulation has ceased or in which it only continues with difficulty. If arterial pressure now arises there is no room in the cranium for further expansion of arteries. Around the compressed area there lie a number of arterioles in which the full static pressure exists for the outlet from these vessels is locked. The effect of increased arterial pressure will be felt in the arteries and arterioles of the area in which static pressure exists and will be greatly increased in the brain, therefore any increase in the arterial tension so far as it is transmitted directly through the brain substance increases the capilliary venous area of increased pressure. In physiologic conditions the arterial extension of one vascular area is no greater than in another; on the other hand in the pathologic conditions of compression the arterial tension of one vascular area has become greater than the rest. It follows that in a case of compression of a foreign body in the cranial cavity an increase of arterial pressure will more readily produce the hyperaemia and the concomitant anaemia then in a healthy brain. The venous oedema is possibly the cause of adhesions of the dura and pia so often found post mortem in epileptics and paretics, and are not the cause but the result of the disease.

DR. R. J. BREVARD.

Dr. Robert Joseph Brevard died at his home in Charlotte on the 11th of August, after a long illness in which the mettle of the man was supremely tested.

He was born at Tallahassee, Fla., December 15, 1848. After receiving an elementary education he attended Davidson College, North Carolina. Later he went to the University of the City of New York as a student in the medical department. He graduated in 1872 and was valedictorian of his class, his being the first valedictory delivered by a Southerner at a Northern institution after the civil war. Among his classmates were Drs. H. M. Wilder and H. J. Walker, of Charlotte; the late Dr. T. George Walton, of Morganton, and Dr. Robert McLean, of Lincoln county. He was a brilliant student and exceedingly popular among his fellow-students.

Dr. Brevard's first medical work was done in Shelby, N. C., moving from there to Lincolnton, and, in 1882, to Charlotte. He was a man of striking personality, a keen observer and possessed the instincts that came to him from an ancestry of gentle folk. Strong, lovable, courteous, wonderfully successful in a business way, he soon became a prominent member of the body politic of his chosen city, which twice honored him by electing him mayor, in which capacity he served with rare wisdom and courage.

A few years ago his business interests became so exacting that the active practice of medicine was laid aside, though he retained his position as surgeon for the Seaboard Air Line Railway and ministered to his personal friends with his old-time skill.

The Mecklenburg County Medical Society, of which he was a prominent member, attended the funeral in a body. Thus closed a life in which the elements were so mixed that it became beautiful and beloved.

The Pitt county (N. C.) Medical Society has recently taken a positive stand in the enactment of a By-law providing that no member will make old-line insurance examinations for less than $5.00. Recalling the old phrase relative to "the good that men do lives after them," we can almost see the spirit of the great Charles J. O'Hagan brooding over the profession of the county, where for so many years he stood a living exemplar of the best and noblest in a medical man's life, ever exercising an influence for higher standards in all things professional.

Editorial Notes

The disparity between the amount, $800, appropriated by the American Medical Association. for scientific research and the $10,000 paid as salary to its secretary editor, is a straw that is significance itself.

It was stated on the floor of the House of Delegates at Boston, that the services rendered by Dr. Simmons warranted this expenditure of salary, and the further extravagant statement was made. that if the interests of the association, and its multiplicity of commercial departments, are promoted within the next five years, in the same ratio as within the past five, a salary of $20,000 could well be afforded.

The American Medical Journalist figures in this wise: "It appears that the new names added to the membership roll of the Association for the eleven months ending May 1, 1906, numbered, in the gross, 5,559. Deducting a gross loss of 1,208 members—171 of whom were lost by death and 619 by resignation—we have a net addition of 4,351 members from all sources. Deducting therefrom, however, the membership of 3,757 accruing from the New York amalgamation (this number being merely transferred from the subscription list of the J. A. M. A. to the membership roll of the A. M. A., without any increase in revenue to the Association), we find only an actual net increase, from the country at large, of same 594 new members for the eleven months ending May 1, 1906, or less than one-half the loss throughout the same period!

As, therefore, it has cost the Association at the rate of some $20 per head to secure these five or six hundred new members—McCormack's salary being $5,000 and his "expenses" in the neighborhood of $7,000 per annum (more or less), not to speak of the expenses of cultivation in other quarters and directions—it is obvious that Sec.-Ed. Simmons' progress towards the $20,000 per annum so freely promised by a member of the Board of Trustees in the event of certain contingencies being met, or results shown, must be through some other department."

Leaving out the wisdom or unwisdom of paying $10,000 to the Secretary the fact remains that in the minds of the Board of Trustees the ratio of commercial to scientific interests, is as 25 to 2—the body of men, to whom, above all others, we should look for original scientific work. Men and brethren, these things ought not to be, and when the 19,285 physicians who compose the American Medical Association, wake up to the situation as it is, the Chicago machine will be wiped out of existence.

SEABOARD AIR LINE RAILWAY SURGEONS.

The fourth annual session of the Seaboard Air Line Railway Surgeons was held in the De Soto Hotel, Savannah, Ga., July 13-14, 1906. The following interesting program was carried out:

First Day, Friday, July 13, 1906.
Morning Session—10 o'clock.

Meeting called to order by President G. A. Neuffer, Abbeville, S. C.

Prayer by Rev. John D. Jordan, Savannah, Ga.

Address of welcome in behalf of the city; Hon. J. H. Estill, Savannah.

Address of welcome in behalf of profession of city, Dr. Ralston Lattimore, Savannah.

Response to address of welcome by Surgeon G. G. Holladay, Portsmouth, Va.

Address by President G. A. Neuffer, Abbeville. S. C.

Report of Committee on Arrangements.

Report of Secretary and Treasurer.

Papers.

1 "The Treatment of Fracture of the Skull, Trephining and Results" by Surgeon W. E. Norton, Savannah.

2 "Traumatic Pneumonia from Railway Accidents," by Surgeon John H. Miller, Cross Hill, S. C.

3 "Practical Surgery," by Surgeon J. E. Malone, Louisburg. N. C.

4 " The Broad View of Therapeutics in Medicine and Surgery" by Surgeon Cary P. Rogers, Jacksonville, Fla.

5 "Subject to be announced," by Oculist A. W. Calhoun, Atlanta, Ga.

6 "Adhesive Inflammation," by Surgeon J. G. Wallace, Dade City, Fla.

7 "Fractures of the Leg," by Surgeon W. A. Monroe, Sanford, N. C.

8 "Treatment of Fractures," by Surgeon Wm. Weston, Columbia, S. C.

9 "Fatty Degeneration of Scrotum and Report of Railroad Accident Case," by Surgeon J. G. Dean, Dawson, Ga.

10 "The Capable Railway Surgeon and His Responsibilities," by Surgeon K. M. Ferguson, Southern Pines, N. C.

Afternoon Session—3 o'clock.

11 "Erichson's So-Called Railroad Spine, with report of case illustrating how often the ablest doctors have been deceived by this malady," by Surgeon E. H. Richardson, Atlanta, Ga.

12 "Malingers and Malingering," by Invited Guest, Surgeon Geo. R. White, Savannah, Ga.

13 "Some Common Diseases of the Eye and Their Treatment," by Oculist D. D. Wilcox, Petersburg, Va.

14 "Eye Wounds and Their Treatment," by Invited Guest, Oculist J. Lawton Hiers, Savannah, Ga.

15 "Subject to be Announced," by Invited Guest, Surgeon Le Grand Guerry, Columbia, S. C.

16 "Subject to be Announced," by Invited Guest, Surgeon Geo. Ben. Johnston, Richmond, Va.

17 "The Recognition and Management of Dislocation of the Shoulder Joint Complicated by Fracture of the Neck of the Humerus," by Invited Guest, Surgeon H. A. Royster, Raleigh, N. C.

18 "A Report of Some Railway Cases," by Surgeon G. G. Holladay, Portsmouth, Va.

19 "The Importance of Selecting a Suitable Line for Operating" by Surgeon J. D. Love, Jacksonville, Fla.

20 "Differential Diagnosis of Lesions in the Upper Abdominal Zone," by Surgeon J. N. Baker, Montgomery, Ala.

21 "Subject to be Announced," by Surgeon Southgate Leigh, Norfolk, Va.

Second Day, Saturday, July 14th.
Morning Session—9 o'clock.

22 "Heroin Hypodermically," by Surgeon L. S. Oppenheimer, Tampa, Fla.

23 "The Railroad Surgeon's Duty When Another Doctor Gets the Railroad Case," by Surgeon J. W. Palmer, Ailey, Ga.

24 Address, by Chief Surgeon Jos. M. Burke, Petersburg, Va.

25 "Injury to Hip in Old Person—was it a Fracture?" by Surgeon John W. Corbett, Camden, S. C.

26 "Injuries Received by Jumping From

Freight Cars," by Surgeon Samuel C. Benedict, Athens, Ga.

27 "Subject to be Announced," by Surgeon J. C. Knight, Plant City, Fla.

28 "Subject to be Announced," by Surgeon M. T. Johnson, Lawrenceville, Ga.

29 "Subject Unannounced," by Surgeon D. W. Prince, Laurinburg, N. C.

30 "Subject to be Announced," by Surgeon Henry E. Palmer, Tallahassee, Fla.

Afternoon Session—2 o'clock.

New Business
Report of Special Committee
Report of Executive Committee
Election of Officers
Installation of New Officers

The De Soto is one of the most elegant hotels in the South and is an ideal convention home. The Seaboard Air Line, ever mindful of the comfort and pleasure of its faithful surgeons, provided a trip to Tybee and an elegant fish supper for the Association, and tendered them its steamer, Bluffton, for a delightful trip down the river.

The officers for the next year are as named:

President—W. A. Monroe, of Sanford, N. C.

Vice President—First Surgeon J. G. Wallace, Dade City, Fla.

Second Surgeon—H. M. Wilder, Charlotte, N. C.

Third Surgeon—E. H. Richardson, Atlanta, Ga.

Secretary and Treasurer—J. W. Palmer, of Ailey, Ga.

Member Executive Committee—J. H. Miller, Cross Hill, S. C.

Resolutions were adopted thanking the retiring president, Dr. G. A. Neuffer, of Abbeville, S. C., for his able administration, and upon effective work of the secretary and treasurer, Dr. J. W. Palmer; in return for courtesies extended by the DeSoto Hotel, the Savannah Press and the Morning News; and the local professions for many kindnesses and attentions.

The next meeting will be held at Norfolk, during the Jamestown Exposition.

COMBINATION OF MEDICAL JOURNALS IN LOS ANGELES.

It is announced that the California Medical and Surgical Reporter has bought the Los Angeles Medical Journal and the two will be published as one.

SOUTH CAROLINA AND GEORGIA.

It is stated that the reciprocal relation which forinerly existed between these two States has been broken, South Carolina holding that the Georgia standard is not up to hers. The Georgia Board has been notified that it will be necessary for them to raise their standard before former relations can be restored.

NEW QUARANTINE STATION FOR THE SOUTH.

In order that vessels might enter New Orleans with the usual period of detention, Surgeon-General Wyman has obtained permission for the U. S. Public Health and Marine Hospital Service to establish quarantine and disinfecting stations at St. Lucia and Barbadoes.

WEST VIRGINIA STATE MEDICAL SOCIETY.

The annual meeting was held at Websters Springs, on the 22nd of June, when the following officers were chosen for the year: President, Dr. William W. Golden, Elkins: First Vice-President, Dr. N. T. Churchman, Charleston; Second Vice-President, Dr. M. F. Wright, Burlington; Third Vice-President, Dr. C. T. Smith, Tunnelton; Secretary, Dr. T. W. Moore, Huntington; Treasurer, Dr. T. D. Barber, Charleston; Councillors: First District, Dr. H. P. Linsz, Wheeling; Second District, Dr. R. H. Powell, Grafton; Third District, Dr. P. A. Haley, Charleston; Fourth District, Dr. W. S. Link, Parkersburg; Fifth District, Dr. C. R. Enslow, Huntington, and Dr. J. W. Preston, Keystone.

MISSISSIPPI MEDICAL COLLEGE.

The Sessions for 1906-1907 will open in October, occupying the handsome new building which is now in construction being rapidly pushed to completion. The officers elected are as follows: President, Dr. W. W. Hamilton; Vice-President, Dr. T. A. Barber; Secretary, Mr. O. W. Bethea; Treasurer, Dr. T. J. Houston; Dean, Dr. N. L. Clarke.

THE HIGHSMITH HOSPITAL, FAYETTEVILLE, N. C.

We are pleased to note the completion of a handsome new operating room, at a cost of $15,000, $10,000 of this amount being given to the hospital, by Mrs. W. P. Cochran, of Yonkers, N. Y.

Of this new department, the Fayetteville Observer says: "Nothing like it of the kind can be found in North Carolina, either in its elegant exterior architecture, or in its interior surgical appliances. The operating room proper, lighted from above, is flanked on one side by the anaesthetic room for patients preparatory to operation, and on the other by the sterilizing room, fully equipped with all the appliances in burnished copper. On the other side of the corridor is the superintendent's private room, furnished for his equipment for the operating room, and his return thence, with lavatories and hot and cold shower and other baths. Next is the electrical room, with the latest instruments, connected with the motors and the

city water pressure, and adjoining is the septic room for patients of that class. Last is the heating room, which adjoins the Otis hydraulic elevator, running up to all the floors of the main building. The floors of the operating annex are of hexagonal mosaic blocks, the walls of wood-fibre, exquisitely tinted and finished, the wainscoting of pure white enamel tiling, and all the basins, lavatories, etc., of solid white porcelain. It is furnished throughout with electric lights, electric bells, and telephone system belonging exclusively to the hospital. Attached to the operating room is a room for visiting physicians, where all the conveniences of the institution will be at their command. A drive way is being arranged, by which patients may be conveyed into the hospital by the rear entrance, thus obviating publicity.

Dr. Daniel F. Ellis, member of the faculty and college physician of the Randolph-Macon College at Ashland, Va., was drowned in Stagg creek, Aug. 13th, while on his way to pay a charity visit to an old negro patient. High water swept his buggy down the stream. The doctor's 5-year-old son was with him, but was saved by his father placing him in an overhanging tree.

In our last issue we expressed our pleasure in the completion of the Robert Bruce Memorial Hospital, at Kinston, N. C., and in the fact that there is manifestly a growing inclination on the part of the Southern physicians, to provide the best that can be obtained for the use of our suffering ones. That it will be a profitable, as well as beneficent work, we have no doubt.

Any young physician, or medical student who wishes a change of work for a few weeks, will learn something of interest if he communicates with Messrs. M. S. & D. A. Byck, of Savannah, Ga.

The many friends of Dr. George Ben Johnson will be interested in knowing that he has withdrawn from the professorship of surgery at the University of Virginia, and is continuing his surgical practice in Richmond, Virginia.

Says a recent medical writer in regard to bathing:

"Do whatever agrees best with your individual constitution and circumstances. If you find that a cold bath, with a brisk rub down, gives a fine reaction of blood to the surface, with a splendid glow and vigor, well and good; there is no better way to begin the day. But if you have a feeble reaction, and get 'sticks in your throat' as a result, don't do it if you value your life. So for all other kinds of exposure."

Review of Southern Medical Literature.

The Texas Medical News, May, 1906.

The Uterus and Ovary of Neurasthenia.—Dr. R. L. Dickinson gives the following conclusions after a study of the history of one hundred cases of the more chronic and aggravated type of neurasthenia:

1. The associated lesions in cases of this degree as indicated by this series would be as follows: a. In the ovary chronic ovaritis chiefly microscopic was found in nearly all. b. In the uterus endometritis usually cervical was present in the majority of cases, and was seldom accompanied with thickening of the endometrium. c. A high degree of sclerosis of the vessels of the uterine walls and of those of the endometrium was sometimes discovered in cases of long standing and the venous enlargements were many. d. About the vulva certain hypertrophies were noted in the majority of cases. e. In the bladder congestion of the trigone was frequent. f. In the rectum catarrhal congestion and atony were persistent in a large number.

2. In this class of cases pelvic symptoms are prominent and lumbar pain constant.

3. In almost all of these cases the pelvic disorder is coincident, not causative.

4. Correction of abnormalities of structure and function by prolonged local treatment or by operation lessens pelvic pain very little and betters the general condition not at all. Treatment should be directed almost entirely to the general condition.

5. Operation on pronounced pelvic lesions is warrantable in a few selected cases, such as persistent and exhausting hemorrhages and the larger tumors, and if thoroughgoing brings about a cure, revolutionizing the general condition in a very small percentage of cases.

6. Anatomic cure frequently fails to bring symptomatic cure.

Texas State Journal of Medicine, May, 1906.

This issue contains the President's Annual Address, the Annual Oration and State Transactions.

New Orleans Medical and Surgical Journal, May, 1906.

Third Stage of Labor.—Dr. E. L. Matthews believes that the practice sometimes followed by practitioners in these cases of inertia uteri or apparent inertia when the placenta is not delivered within the first twenty minutes following the second stage is to wash the hands, lubricate the right hand and forearm, place the left hand over the fundus uteri, and with the cord as a guide follow into the uterus and manually detach or remove it if already detached.

This practice has the highest condemnation of the best authorities. Williams, Professor of Obstetrics at Johns Hopkins, says in his latest work "The procedure is more serious than the performance of version or the application of forceps." The hand is rarely sterile—it is introduced into the uterine cavity carrying with it bacteria of many varieties, and there comes in direct contact with a freshly wounded placental site, through which are scattered numerous bleeding and thrombosed vessels which afford them an excellent culture medium. Manual removal of the placenta should only be undertaken when the condition of the patient is serious or there be free hemorrhage.

The Texas Medical Journal, May, 1906.

Mosquito Extermination and its Bearing on Yellow Fever and Modern Quarantines.—Dr. C. W. Truehart regards the stegomyia fasciata as a thoroughly domestic insect—as much a domestic insect as barn-yard chickens are domestic fowls. It does not breed in marshes, but almost exclusively in proximity to human habitations, and as a rule only in clean, fresh water. Cutting any species of mosquito off from water to drink as well as to breeding and a resort to fumigation of the houses will effectually rid any place of the insects.

Formaldehyde gas I have found to be the least obnoxious and by far the most effective agent as an insecticide and germicide. But the secret in securing the fullest measure of effectiveness from formaldehyde gas depends upon the generation of the gas with such rapidity and in such large volume and concentrated strength as to overwhelm and destroy insect and germ life. One hour of such fumigation suffices to kill all insects and disease germs.

The rich and growing commerce of Cuba and other West India islands, Mexico, Central and South America would naturally seek our Texan and other gulf ports if only our people would wake up to the fact that with the yellow fever-spreading mosquito exterminated this valuable trade could be handled without danger to the health and lives of our citizens. The antiquated quarantine methods that have heretofore prevailed in gulf ports have driven this commerce to their North Atlantic rivals and to Europe. Let us stop this cutting our own throats.

Nashville Journal of Medicine and Surgery, May, 1906.

Tinea Versicolor.—Dr. John V. Shoemaker gives the following under diagnosis in a clinical lecture: The diagnosis of tinea versicolor is comparatively easy from its characteristic fawn color usually present, the slight elevation of the affected skin and he furfuraceous desquamation. The furturous disquamation especially should form the salient feature for diagnostic purposes, and if combined by the microscopic examination will leave little doubt as to the character of the disease. The disease might possibly be mistaken for an chloasma, vitiligo, lentigo and macular syphilis, but on close examination and inquiry into the history will readily reveal the true nature of the affection.

Atlanta Journal Record of Medicine, May, 1906.

Treatment of Constipation.—Dr. T. Torpel under the section of Olive Oil Injections says that this is a very satisfactory measure and is highly recommended by Kussmaul. Inject from three to ten ounces of warm olive oil in the rectum at bedtime. This is retained during the night and usually results in an evacuation after breakfast on the following day. If the oil is introduced slowly at a low pressure by the force of gravity the patient should have no difficulty in retaining it for the night. Dr. Herschels method and apparatus is as follows:

A glass funnel of a large relative capacity to its height provided with a loop by which it can be suspended at a convenient height above the patient is fitted with 28 inches of rubber tubing, $\frac{3}{8}$ inch caliber, and terminating a nozzle. Colon tube may answer same purpose. The injection can be made by the patient without assistance. The oil is first heated by placing the bottle containing it in a basin of hot water. The funnel is hung on a nail above the bed. The patient lies on his back with his hips on the pillow, introduces the tube and waits till the funnel is empty. It is best to commence with five or six ounces and to reduce the dose daily until the smallest amount which will produce an action of the bowels is found. In a few days it will probably be found that a few ounces of oil at bedtime will produce a daily evacuation. The effect may then be tried by using the oil on alternating nights, and as the case progresses the action of the oil will extend over a longer period and will be followed by several daily stools. When this period arrives the injection should be ordered to be taken only on the evening of the day on which the action has not taken place.

The Virginia Medical Semi-Monthly, May, 1906.

Acute Lymphatic Leukaemia.—Dr. H. S. Holloway says in arriving at a correct diagnosis many simulating conditions must be excluded.

First. Pernicious anemia. Here the blood picture is entirely different, although in some cases of pernicious anemia the blood findings are entirely negative, and the diagnosis must rest upon the clinical evidence.

The majority of these cases show an enormous increase of normoblasts and considerable number of megaloblasts, a color index of 1 to 1 plus, marked poikilocytosis and a hyperleucocytosis.

Second. Hodgkin's Disease. This affection runs a more chronic course. The blood picture shows only a secondary anemia. Upon removing one of the nodes and examining it microscopically the characteristic changes are noted.

Third. Banti's Disease. Here the spleen is usually very much enlarged and there is a profound anemia and the leucocytes are not increased.

Fourth. Malignancy. Especially that form of malignancy affecting the spleen primarily. The blood shows nothing characteristic except a secondary anemia.

Fifth. Simple adenitis. A history of some local disease about the skin or mucous membrane usually suffices to clear up the diagnosis.

Sixth. Chronic Malaria. Here again the presence of ovoids or crescents in the blood or a rapid clearing up of the symptoms under the administration of quinine should suffice to remove all doubt in the mind of the clinician as to the exact nature of the malady.

Seventh. Anchylostomiasis. The persistence of worms or their eggs in the stool should immediately make clear the diagnosis. In many cases of anchylostomiasis the blood shows a large percentage of eosinophiles and frequently in examining the blood of individuals with profound anemia this feature is the first to direct the attention of the examiner to the bowel as the original seat of the trouble.

Eighth. Acute Yellow Atrophy. Marked jaundice, delirium, vomiting and a rapidly fatal course characterize this malady.

The American Practitioner and News, May, 1906.

Puerperal Infection.—Dr. A. S. Priddy after discussing the subject in general points out the following important points concerning the use of the curette in these cases:

The curette is such a useful instrument in scraping out the contents of the sapremic womb and such good has resulted from it properly used in sapremia that it has led to its indiscriminate use in supposed and real cases of puerperal sepsis as to become from improper use an instrument of greater harm than good. In most cases of puerperal infection an examination of the endometrial surface reveals a perfectly smooth condition. Therefore, unless the uterus is enlarged and boggy, and the discharge foul smelling before deciding to curette the finger well disinfected should be introduced into the cavity and swept over the endometrium, and unless there are some irregularities or masses felt which cannot be peeled off with the finger the use of the curette on such an endometrium, aside from the danger of puncturing the thinned and softened wall of the uterus and infecting the general cavity, the curette would most likely increase the danger by scraping away the zone of cellular infiltration which nature has provided as a barrier against the deeper extension of infection.

Gaillard's Southern Medicine, May, 1906.

A Case of Hodgkin's Disease.—Dr. W. H. Atkinson advises the following treatment: Medicines thus far seem to have accomplished nothing in a curative way. Arsenic has long been looked upon as our anchor-sheet, although no cures are to its credit. The varied symptoms arising from the pressure upon the different organs each demand its specific treatment as they make their appearance during the progress of the disease. Relief of pain is of course important.

Conclusions from the observations in my case would make me advise the X-Ray treatment at the first suspicion of Hodgkins' Disease. The exposure should be long and as frequent as patient can endure, and the continuance of such treatment should not cease for months or even years should the patient show any improvement by its administration.

Many cases that have shown much improvement under the X-Ray treatment had a rapid return of symptoms when the exposures were discontinued even for a short time. Subsequent exposures did not give as good or as effectual results as the first ones. The inhalation of oxygen three or four times a day from the onset of the disease might add much to a cure and surely could do no harm.

Maryland Medical Journal, May, 1906.

Dr. R. H. Johnson says that those of us who have studied the anatomy of the accessory cavities—their thin walls, their nearness to the vital centers—cannot but be impressed with the fact that pus confined in them without proper drainage must constitute an element of danger, both as regards health and life. In looking over the statistics of death from empyema, which are far from complete, I have found that in nearly every case headache, more or less intense, preceded the fatal issue. The inference to be drawn from this is that headache constitutes a symptom of danger, and if after drainage has been established through the nose it persists, better drainage with an examination of the walls must be secured by an external operation. Hajek has collected a number of deaths from accessory-cavity

disease, and his list is not complete. In his article on brain complications he makes the significant statement that in meningitis and abscess of the brain only exceptionally has a careful section of the nose been made and that often striking macroscopic changes are wanting at the base of the brain or skull which would lead to the origin of the disease. From the facts he concludes that cerebral disease of nasal origin is much more common than statistics show.

The Mobile Medical and Surgical Journal, May, 1906.

Some Points on Pulmonary Surgery.—Dr. W. R. Jackson draws up the following conclusions:

1. Always use chloroform as an anesthetic.

2. Immobilize the chest walls in all injuries of the pleura or lung.

3. Avoid attempting primary disinfection of penetrating accidental wounds of the lung and pleura. Disinfection of the external wounds and antiseptic occlusive dressing (without suture) usually suffice.

4. Never probe gunshot wounds of the thorax to ascertain the direction or location of the ball.

5. Make sure of adhesions to the parietal pleura before exploring the lung for abscess, gangrene, bronchiectasis, or tubercle.

6. Avoid producing double pneumothorax even if empyema is present on both sides. Operate on one side at a time and wait until well, then attack the other side.

Surgical Treatment of Talipes Paralytica.—Dr. W. T. Berry believes that no operation requires stricter asepsis than the one of tendon anastomosis if good and satisfactory results be gotten. The incision should be large enough to expose to view all tendons to be grafted, and the operation be done under an Esmarch bandage. Paralyzed tendons are easily recognizable by their dull, ashy color, while the healthier ones are a glistening white. The tendons utilized should be scarified and sutured firmly to the periosteum with silk sutures. The foot is put up in a plaster dressing in an over connected dressing and so maintained for from five to eight weeks. The patient may be allowed to walk about with auxillary crutches in two or three days after the operation, and in another week he is able to use the member.

Virginia Medical Semi-Monthly, May 25th, 1906.

Acute Nephritis--with Special Reference to Diagnosis and Treatment—Dr. O. C. Albright under the section on treatment he says contrary to the advice of good men I have used morphine with good results after all other drugs have failed. I know I am on dangerous ground when I advocate opiates in this condition, and I am not going to advise anybody to use it who doubts its efficacy. In every case of puerperal convulsions I ever treated at the beginning I tried to follow the text-books, but always failed to relieve any patient until I used large doses of morphine. I do not advise its pernicious use, but in properly selected cases when used with discretion and its action guarded with other remedies it has always acted well for me and never badly.

Of other useful drugs in acute nephritis may be mentioned strychnine, digitalis, nitroglycerine, etc., according to symptoms and condition of patient. Iron is always indicated in nephritis. Most authors advise against its use during the active stage of the disease. Of the preparations of iron used I prefer a combination of the tincture of the chloride with Spts. Mindererus. It is more readily assimilated than the pure tincture, better borne by the stomach, and can be given in smaller doses with benefit, even in the acute stage of the disease.

The diet in the beginning of acute nephritis should consist chiefly of skimmed milk. As convalescence is established a gradual return to a mixed diet is advised. If kept on strictly a milk diet too long nutrition suffers and thereby retards recovery of patient.

Gaillard's Southern Medicine, June, 1906.

Extra-Uterine Pregnancy with Report of twelve Cases.—Dr. J. W. Long, after discussing the subject and reporting the cases, touches on another phase of this subject relative to the cause and sequelae of ectopic gestation.

The biology that we were all taught said that the impregnated ovum fell among the uterine follicles, which rapidly became hypertrophic and enveloped it in their arms. Peters describes the earliest known human ovum, which was secured from a woman who suicided three days after missing her period. He shows clearly that the ovum is the active agent, and that it evades or destroys the tissues of the mucosa, making for itself a cavity or bed into which it sinks. Prof. Minot, of Harvard Medical School, has proven by experiments on embryo in the lower animals that certain chorion cells have the property of destroying tissues, and t is believed that the same is true of the human ovum. Minot says the ectodemic cells of the chorion becomes hypertrophied and are known by their large size. These cells he calls the trophoderms and possess he destructive power just described. The production of a cavity in the uterine mucosa by the digestive properties of the trophoderms and the lodgement of the ovum in the mucosa is styled by emtyologists "implantation." In other words the ovum is the

active agent in the process of implantation and its activity depends largely on the destructive properties of the trophodermic cells of the chorion.

Suppose for any reason the impregnated ovum finds lodgement in the tube trophodermis quickly get in their work, and in the thin walled tube makes a hole entirely through or cause the ovum to be implanted so close to the surface as to easily cause rupture by blood pressure.

Goffe in discussing this matter cites a case in point. At operation he found abundant blood clots and only a pin hole opening filled with a blood-clot opening in the tube. An examination of the interior of the tube after removal "gave no indication of the development of a placenta or chorion cells. The ovum at a very early stage must have evaded its way through the tube and hemorrhages must have been quite frequent if not continuous."

Memphis Medical Monthly, June, 1906.

Some Common Forms of Meningitis.—Dr. B. F. Turner believes that the majority of inflammations of the coverings of the brain and spinal cord are attended with permanent defects, and, therefore, this class of cases is not inspiring to the therapeutist. Thickening of the cerebral or spinal coverings, invasion of the brain or cord substance, distension of the brain by accumulation of fluid are almost always accompanied by results which are permanent, hence paralysis disorders of vision, imbecility, or any grade of mental impairment is very likely to be the ultimate result, even though the unfortunate subject does not succumb immediately to the attack. Indeed it is a sort of case that the doctor hopes will not recover. Furthermore, the pernicious results of the pathological processes in the coverings of the brain and spinal cord may not be immediately apparent, especially if it be true that an apparent perfect recovery follows. The rectum is liable years hence to develop epilepsy or mental feebleness, eccentricities, intellectual obliquity, and recover only to be a crippled member of society and a possible care to his friends. Treatment should be conducted on empirical lines inasmuch as we find that it is in the majority of cases secondary to some other affection and treatment can only be addressed to the primary cause and to the symptoms as they arise.

The Mobile Medical and Surgical Journal, June, 1906.

Local Anesthesia is Surgery.—Dr. W. T. Henderson thus describes the operation for inguinal hernia with local anesthesia. The line of incision is marked out and beginning at the upper end the skin is picked up and a few minums of the one-fourth of one per cent. cocaine solution is injected into the skin and not under it. As soon as this injection is made, if done properly, there will be an area of anemia produced about the size of a twenty-five cent piece. This spot is anesthetized. A succession of these spots is produced along the line of the intended incision, the hypodermic needle being reinserted just in the edge of the anemic area on the opposite side from which it was last removed. The syringe is now filled with the one-eighth per cent. solution and at intervals of one inch along the line of the intended incision the needle is inserted straight down into the subcutaneous tissue and about five minums of the solution injected. This is continued along the entire anesthetized area, and when done there will be a ridge and along the summit of this ridge the cut is made. The surgeon now dissects down through the various tissues until the canal is reached where he should find the ilio-inguinal nerve which is picked up and injected with about ten minums of the one-eighth per cent. solution. This injection should be at the upper angle of the wound, as its purpose is to destroy all sensation below the insertion of the needle. After the nerve is successfully treated there need be no more fear of hurting the patient. The sac is dissected out, opened, transfixed and cut off or the operation selected which the surgeon may prefer.

Before the cutaneous stitches are tied, and for these I prefer interrupted sutures of silk-worm gut, a small piece of gauze is laid in the lower angle of the wound to draw off the serum which will collect between the cut surfaces. In twenty-four hours this is removed by gently lifting up the bandage and pulling on the lower end of the gauze.

Texas Medical Journal, June, 1906.

A Note on the Improper Management of Epileptics.—Dr. M. R. Hughes says this disease is one that should be handled in the most careful manner. One reason why it is so widely classed as an incurable disease is the fact that the treatment has been overdone at the wrong time, or not carried far enough at the proper time. The use of electricity has been greatly abused, likewise the bromides. The bromides are not drugs to be given together. Results are much better when given separately.

It is not possible to effect a cure by the use of bromides alone, but many think so. The patient in the first place in many instances is not carefully examined, is placed upon bromide and electric treatment at once, as soon as the diagnosis is made without respect or regard to the exact mental phenomena that are taking place within the structure of the brain at that particular time

or without knowing or understanding why that condition is present. Naturally enough the results are negative, and that is the first reason why it is considered incurable. The second reason is because pains are not taken in the first and subsequent examinations to ascertain what mental phenomena are taking place within the cortex and giving rise to that particular stage of the disease at that time and what is likely to follow. The third reason is that most practitioners believe the treatment of all epileptics to be directed alike, therefore the examinations are shallow and the patient does not recover. *The American Practitioner and News, June, 1906.*

A Simple Method of Expanding the Lung after Operation for Empyema.—Dr. J. R. Maddox thus describes this method which he used on a case two weeks after the incision and drain had been put in. The discharge at this time was serious and no evidence of re-expansion of the lung. A No. 26 French rectal tube was used for drainage and suction. Over this tube was slipped a hard rubber plate 2x3 inches with a hole in the center. Before introducing the tube into the cavity the plate was dipped in hot water and curved to fit the chest wall. The tube was drawn through the hole just sufficient to protrude into the pleural cavity. Over this was drawn a circular piece of dentists' rubber done outside the plate, but so as to fit snugly against it. Over all was placed neatly a firm dressing of adhesive strips overlapping each other and working from the center outward and placed perpendicular or at right angles to the ribs, and were eight to ten inches long. Over this in turn was placed another layer of adhesive strips at right angles to the first layer.

This being accomplished a piece of common white tubing was joined to the distal end of the rectal tube. The other end of the white tubing was now fitted tightly into one of the nipples protruding above the rubber stopper of an exhaust bottle belonging to Black's aspirator and cupping apparatus. The stopper was then fitted to the bottle and the bottle connected to the air pump of the apparatus. After testing the apparatus the pump was handed to the patient and he soon learned that about every thirty minutes he should give the pump three or four strokes. The nurse carrying it out when patient was asleep. Within two days the vesicular murmur could be heard nearly down to the wound. The fifth day the cavity was full of lung, the chest wall having noticeably receded. The adhesive dressings had to be removed nearly every day. At the end of the fifth day the whole dressing and apparatus were discarded; their work having been accomplished. Eight weeks from the time the apparatus was installed and just ten weeks from the date of operation the wound is closed and the patient is the picture of robust health.

Book Notices.

OFF THE ROCKS. Stories of the Deep-Sea Fisherfolk of Labrador. By Wilfred T. Grenfell. With an Introduction by Henry van Dyke. Philadelphia: The Sunday School Times Co. $1.00 net.

Dr. van Dyke's introductory closes with: "You who love Nature, not trimmed and embroidered, but in the largeness and mystery of her wild charm; you who love humanity, not disguised and trained for the stage, but frankly living its own life and expressing its primitive feelings, you who know a man when you see him, and like him best when he does things; you who feel that religion is just as real as Nature, just as real as humanity, and that brave adventures may be achieved in the name of Christ —this book is for you. This is the real thing."

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SONGS MERRY AND SAD. John Charles McNeill. The Stone & Barringer Company, Charlotte, N. C. $1.00.

This little volume of poems, issued a few doors from the Journal office, finds a warm welcome, for they are songs from the heart of a poet. Simple they are, with no straining after effect. Mr. McNeill received, last Autumn, the loving cup offered by Mrs. Lindsay Patterson, for the best original work done in the State during the previous year, and worthily was this honor bestowed. The little poem, Sundown, will take rank with the verses that will live, this being the finest that the gifted young author has yet written.

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ABBOTT'S ALKALOIDAL DIGEST. A Brief Therapeutics with Clinical Applications. W. C. Abbott, M. D., Editor The American Journal of Clinical Medicine.

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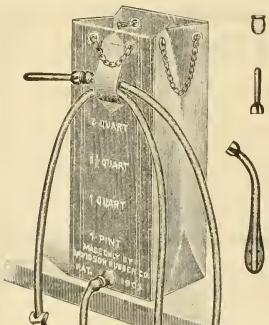

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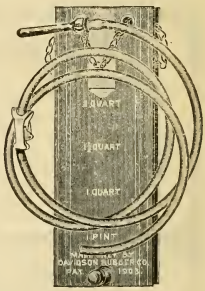

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TABLE OF CONTENTS FOR AUGUST, 1906.

Original Communications.

Address of Welcome, by Hon. T. C. Guthrie, Charlotte, N. C., ... 57
An Imperforate and Obstructive Hymen at Full Term, by H. S. Lott, M. D., Winston Salem, N. C., 61
Cholelithiasis, by Dr. Henry F. Long, Statesville, N. C. 71
Intestinal Indigestion: Its Dietetic and Rational Treatment, by J. E. Ashcraft, M. D., Monroe, N. C., ... 75
Malaria as Seen in Gaston county, by Dr. T. C. Quickel, Stanley, N. C., 91
Obstructions to the Upper Respiratory Tract, by H. H. Briggs, M. D., Asheville, N. C., ... 62
Puerperal Eclampsia, by M. R. Adams, M. D., Statesville, N. C., ... 59
Response to the Address of Welcome, by Dr. B. K. Hays, Oxford, N. C., ... 58
Report of a Case Trephined for Epilepsy, by W. A. Graham, M. D., Durham, N. C., ... 66
Results of Gonorrhoeal Infection in the Female, by H. B. Weaver, M. D., Asheville, N. C., ... 73
Remarks on Railway Sanitation, with Special Reference to the Dangers of Present Methods of Disposing of Human Excreta, and Suggestions for Improvement, by J. Howell Way, M. D., Waynesville, N. C., ... 80
Test Diet in Intestinal Diseases, by Dr. W. O. Nisbit, Charlotte, N. C., ... 64
The Present Status of the Treatment of Cancer—with Report of Cases, by Dr. L. B. McBrayer, Asheville, N. C., ... 67
The Colony Treatment of the Insane and other Defectives, by Dr. P. L. Murphy, Morganton, N. C., ... 84
The Moist Surgical Dressing, by B. R. Graham, M. D., Wallace, N. C., ... 90

Editorial.

Congressman E. Y. Webb's "Patent Medicine Bill" now a Law, ... 96
Dr. R. J. Brevard, ... 98
Insurance Fees Again, ... 97
Medicinal Treatment of Gall-Stones, ... 95
Mixed Infections with Typhoid and Paratyphoid Bacilli, ... 95
Sources of Error in Urinary Analysis from Drugs, ... 93
The Urine in Hepatic Disease, ... 93
The Transplantation of Organs as a Surgical Possibility, ... 94
Traumatic Epilepsy, ... 97

Editorial Notes.

Any Young Physician, etc., 101
Dr. Daniel F. Ellis, ... 101
Mississippi Medical College 100
New Quarantine Station for the South, ... 100
Robert Bruce Memorial Hospital, ... 101
Seaboard Air Line Railway Surgeons, ... 99
The Highsmith Hospital... 100
The American Medical Journal Figures, ... 98
West Virginia State Medical Society, ... 100
Review of Southern Medical Literature, ... 101

Book Notices.

Abbott's Alkaloidal Digest, by W. C. Abbott, M. D., 106
Diseases of the Nose, Throat and Ear, by Kent O. Foltz, M. D., ... 110
International Clinics, by Leading Members of the Medical Profession, ... 110
Off the Rocks, by Wilfred T. Grenfell, ... 106
Practical Dietetics, by Alida Frances Pattee, ... 110
Songs Merry and Sad, by John Charles McNeill, Charlotte, N. C., ... 106
Transactions of the American Electro-Therapeutic Association, ... 109
Transactions of the Royal Academy of Medicine in Ireland, Dr. Jas. Craig, Editor, ... 110
Transactions of the American Laryngological, Rhinological and Otological Society. Published by the Society in St. Louis, Mo., ... 110

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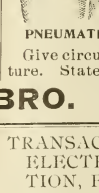

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TRANSACTIONS OF THE AMERICAN ELECTRO-THERAPEUTIC ASSOCIATION, Fourteenth Annual Meeting at St. Louis, Mo., September 12th-15th, 1904. A. L. Chatterton & Co., New York City. We are somewhat behind in receiving

this Record, but it is a valuable book to have for reference in the physician's library. The addresses given cover such a wide range that it is impossible to enumerate them all in this limited space. The Society shows its good judgment in thus preserving these carefully prepared papers, for future use. The mechanical make-up of the book is most excellent.

DISEASES OF THE NOSE, THROAT AND EAR. By Kent O. Foltz, M. D., Professor of Ophthalmology, Otology, Rhinology and Laryngology, in the Eclectic Medical Institute; Consulting Physician to the Seton Hospital; Assistant Editor the Eclectic Medical Journal; Author of a Manual on Diseases of the Eye. 117 illustrations, 12 mo., 643 pp., cloth, $3.50. The Scudder Brothers Co., Publishers, 1009 Plum Sireet, Cincinnati, Ohio.

The writer assumes that in the majority of inflammatory conditions of the upper respiratory tract and the ears, if proper systemic measures are taken during the second stage, a cure will resnlt; that proper constitutional measures will give more or less permanent relief in practically all but malignant cases. He advocates the use of drugs in preference to local treatment only. The subject is clearly stated. A good case is made out. Great emphasis is given to the importance of diagnosis and the prescribing of proper remedies. A careful study of this valuable treatise is well worth while.

PRACTICAL DIETETICS, with reference to diet in Disease: Alida Frances Pattee (Graduate Boston Normal School of Household Arts, Late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City; Special Lecturer at Bellevue, Mount Sinai, Hahnemann, and the Flower Hospital Training Schools for Nurses, New York City; St. Vincent de Paul Hospital, Brockville, Ontario, Canada.) 300 pages. Price, by mail, $1.10. A. F. Pattee, Publisher, 52 West 39th Street, New York.

This text-book has been in such demand that three large editions have been published since July, 1903; it has been included in the syllabus for the Nurses' Training Schools, published by the State of New York Educational Dept., added to the authorized text-book list of the New York public schools, listed No. 3807, adopted by the United States Government, Medical Department of the Army, and adopted by the Canadian Government, Permanent Schools of Instruction for the Canadian Militia.

It is a general guide for proper diet in disease, for the preparation of proper food for the sick and convalescent, giving in detail the method of preparing and administering liquid, semi-liquid and solid food. It contains the diet lists and what to avoid in various diseases; also the proper diet for infants and children as advised by leading physicians and hospitals of New York and Boston, all of which speaks for itself. It is a most valuable book on an important subject.

INTERNATIONAL CLINICS. A Quarterly of Illustrated Clinical Lectures and especially Prepared Original Articles, by Leading Members of the Medical Profession, throughout the world. Edited by Dr. A. O. J. Kelly, with a strong corps of collaborators. Volume II. Sixteenth Series, 1906. Price, cloth, $2.00 net. The J. B. Lippincott Company, Philadelphia, Penn.

The Charlotte Medical Journal has so often referred to this valuable series of books that its readers must be perfectly familiar with its merits. This last edition exceeds all the former ones in the variety of subjects covered, and in the excellence of the treatises. The illustrations are extremely good, and the physician who is so fortunate as to have a complete file of the International Clinics in his library has a most valuble reference feature that he must frequently consult.

The publishers have, as they always do, given careful thought to the mechanical make-up of this series.

TRANSACTIONS OF THE ROYAL ACADEMY OF MEDICINE, IN IRELAND. Dr. Jas. Craig, Editor. John Falconer, Publisher, 53 Upper Sackville Street, Dublin. 1906. Volume XXIV. Illusrrated.

One of the treasured possessions in the library of the Charlotte Medical Journal is an unbroken file of the Transactions of the Royal Academy, since 1893. There is a great diversity in the subject matter discussed in this book and marked excellence in the treatment of the various themes.

The mechanical make-up of the volume is all that could be wished; showing that old-world painstaking that is so delightful to the book-lover.

TRANSACTIONS OF THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL AND OTOLOGICAL SOCIETY. 1905. Published by the Society, in St. Louis, Mo., Dr. Wendell C. Phillips, Secretary. 40 West 47 Street, New York City.

This 1905 meeting was the 11th in the history of the Society; it is composed of four

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sections, which meet in February, and then meet as a whole in June. Its Transactions fill 570 pages; the book is finely illustrated and well bound. The painstaking work of the Secretary, in editing the volume, is evident, from cover to cover.

Anemia of Infancy.—Petrone (Gazetta Med. di Roma) states that anemia is frequent in infancy on account of the numerous conditions that may produce it which exist in the baby, and the lack of resistance of the corpuscles and the hematopoietic organs to morbific agents. No rational classification of anemic conditions in the child is possible except with reference to the hematology. Starting with the conception that the essential symptom of anemia is oligochromemia dependent upon lowering of the globular resistance, and that at times there is oligocythemia, he divides the anemias into two groups: pure anemia and complicated anemia. Of uncomplicated anemias there are three types, chlorotic, simple and pernicious. In the chlorotic type the oligochromemia is produced by diminution of the globular resistance without the number of the red globules being lowered. There is an insufficiency of the amount of iron necessary for the formation of hemoglobin. This insufficiency may be congenital, depending on the scarcity of the reserve iron which the infantile organism takes from the mother, which may arise from any of the

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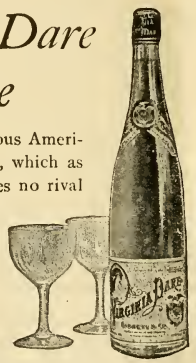

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causes which lessen nutrition in the mother, such as poor feeding, or they may be a premature exhaustion of the reserve, or the exaggeration of hemolysis in the few days after birth. Simple anemia shows an oligochromemia produced either by oligocythemia or diminution of the number of red corpuscles with lessened globular resistance at the same time. In babies, more than in adults, there is polychromatophilia and anisocytosis, with appearance of normoblasts in the circulation. There are many causes of simple anemia which act by consumption of the blood, with diminution of production. The most frequent are disturbances of the digestive tube, deficient and improper feeding, poor hygiene, hereditary syphilis, tuberculosis, intestinal worms, sepsis, exanthemata, etc. Pernicious anemia is characterized by oligocythemia of high degree, oligochromemia, increased globular resistance, presence of megaloblasts in the circulation, nucleated hematiæ, anisocytosis, poikilocytosis, and marked polychromatophylia. All the ordinary causes of anemia when acting in a marked degree may produce the pernicious variety. Causes aside from these are bothriocephalus latus, ankylostomum duodenale, hemorrhage, malignant tumors, malaria, syphilis, sepsis, and intestinal autointoxication. The complicated anemias are characterized by various types of hematology according to their etiology. The most important are mixed pseudoleukemia, and the myelogenous form, splenomegaly with leucopenia, and splenomegaly with lymphocytosis.

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Miscellaneous.

Interesting Case of Ovarian Combined with Intra-Uterine Pregnancy.

The possibility of ovarian pregnancy has always been granted by German Writers, but denied up to recent years by English authorities, only six cases having been reported in England during the past hundred years. In this country up to 1902 only one case has proven authentic. This is probably due to the lack of proper criteria (Williams), but the case I report fulfills the conditions formulated by Speigelberg, and should therefore leave no doubt as to its presence. The conditions formulated are (1) the tube on affected side must be intact; (2) the foetal sac must occupy the position of the ovary; (3) it must be connected with the uterus by the ovarian ligament; and (4) definite ovarian tissue must be found in the sac wall.

This case is not only interesting on account of the rarity of ovarian pregnancies, but on account of its multiplicity, having a pregnant uterus in addition to the ovarian. Parry states in his monograph that 22 out of 500 extra-uterine pregnancies collected by him were complicated by co-existing intra-uterine pregnancy.

Report of Case.—Sallie W., colored, was referred to me for operation by Dr. Samuel Lindsay, of Winnsboro, S. C., March 25th. He was called to see her the preceding day and found her much distended, with symptoms of general peritonitis with obstruction of bowels. Operation was advised, and upon her consent she was at once sent to the Magdaline Hospital. On opening the abdomen the diagnosis of general peritonitis was substantiated, and I found a considerable amount of clotted blood, which suggested extra-uterine pregnancy. Upon further investigation this surmise was shown to be correct, and I passed my finger around the tumor and discovered an opening large enough to admit one finger. This opening was then enlarged sufficiently to remove the foetus, and judging from its size, I would say that pregnancy was of at least five months duration.

The tube was entirely intact, and the sac showed distinct evidences of ovarian tissue in its walls. The placenta was partially attached to the peritoneum, well down into the pelvis.

The other point of interest was the pregnant uterus. I decided to leave the uterus untouched with a hope of its going on to term, but abortion took place the next morning, pregnancy appearing to have been of three months duration.

The patient died in three days of general peritonitis.—S. W. Pryor, M. D., Chester, S. C.

Hot Weather Diet.

In hot weather the average person takes too much food, and particularly an excess of meat. The digestive organs are kept at hard labor assimilating a heavy diet, and forcing every organ in the body to do an unnecessary amount of work. The digestive apparatus faithfully performs its function until insulted nature rebels and enforces a period of rest for the exhausted organs. Another danger from eating too much meat in summer is that of ptomain poisoning following the ingestion of tainted meats.

During the hot months the question of diet is largely one of the class of food material best adapted to sustain mental and physical energy without unduly increasing the production of heat.

A diet of milk, eggs, fruit and Egg-O-See is most suitable for the summer months. Egg-O-See with cold cream makes a delightful basis for every meal, as it offers the full food value of whole-wheat.

The Egg-O-See Cereal Co., of Quincy, Ill., will send on request a full-size package of Egg-O-See to any physician.

The Role of Iron in the Nutritive Process

It is an established custom of physicians to administer iron whenever a patient with pale, waxy, or sallow complexion complains of extreme exhaustion, muscular feebleness, easily accelerated pulse, aphasia, anorexia and the several symptoms which constitute the characteristic issues of a qualitative or quantitative reduction of the corpuscular elements of the blood.

Such symptoms are unerring indications of anemia, and iron is beyond dispute a cure for that disorder. But while the chief therapeutic property of iron is that of an anti-anemic, the subordinate, or collateral, effects of the drug are manifold, and are worthy of far more consideration than they usually receive.

As a hemoglobin-contributor and multiplier of red blood corpuscles, iron will doubtless forever stand supreme, but its utility is by no means restricted to anemic conditions, for one of the chief effects of iron—one quite often lost sight of—is its influence upon nutrition.

The primary effect of iron is a stimulation of the blood supply. This results from invigoration of the blood vessels. As a consequence of a more active blood stream, the digestive capacity is increased and the nutritive processes are correspondingly improved. Subsequently, iron increases the amount of hemoglobin contained in the red corpuscles. This imported hemoglobin converts the systemic oxygen into ozone, and thuswise oxidation, upon which nutrition directly depends, is restored to its proper standard.

It is impossible to emphasize the fact too strongly that it is necessary to do more than increase the appetite to correct nutritive disturbances. A voracious appetite does not necessarily imply an extensive appropriation of nutriment. On the contrary, it is commonly observed that individuals who eat ravenously suffer, the while, a progressive loss in physical weight and strength, even in the absence of all exertions that might account for such losses. And while it is obviously needful to relieve the existing anorexia in order to arrest a loss of weight, it is likewise essential that the capacity to properly digest food be fully restored before the nutritive processes can proceed in befitting order.

The manner in which iron begets an increase in appetite has only recently been perfectly understood. The earlier observers entertained the belief that an increase in appetite resulted from the mechanical effect of iron, and that this mechanical effect never manifested itself unless the drug was administered in some acid form. Later investigators advanced the theory that this mechanical effect could be secured by rendering the drug either strongly acid or alkaline. Recent observations have completely disproved the accuracy of both of those theories by inviting our attention to the indisputable fact that a neutral preparation of iron will relieve anorexia with greater celerity than will either an acid or an alkaline one. From the information gained from these observations, we are impelled to admit that the increase in appetite attending the employment of iron is due solely to the increased oxidation induced by its entrance into the blood stream. Accepting this as being true, we can readily understand the manner in which iron exerts its happy effect upon the nutritive processes.

The aforesaid facts compel the admission that that preparation of iron which enters most rapidly into the blood stream is the one capable of producing the best results in all disturbances of nutrition. Acid preparations of iron diminish the alkalinity of the blood, thus depressing the distribution of nutriment, and alkaline preparations of the drug offend the mucous lining of the alimentary tract. For these reasons it is consistent with logic to extend preferment to that preparation of iron which is neutral in reaction. That preparation is the Pepto-

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Pepto-Mangan (Gude) is unquestionably the form of iron most closely resembling that which is native to the economy, and the striking affinity for it displayed by the circulating fluid causes us to concede that it possesses desirable attributes not common to any other preparation of the drug. Whence we take it that it is the precise form in which to administer iron when a correction of nutritive deficiencies is the end to be achieved.

In those conditions of weakened digestive power where the function is unable properly to take care of the food supply; when to administer the ordinary forms of iron would be but to increase the digestive disturbance, Pepto-Mangan (Gude) may be prescribed without apprehension, as the preparation is tolerated by the weakest stomach. Being practically predigested, Pepto-Mangan is immediately absorbed by the mucous membrane and taken up by the blood without the necessity of the weakened function being called upon to prepare it for assimilation, and therefore the entire system, including the digestive function, is strengthened and reconstructed. As a nutrient tonic in digestive disorders Pepto-Mangan (Gude) has no equal.

Local Treatment for Vaginal Disorders.

The use of suppositories, either of cacao butter or gelatin base, is open to certain objections which are well recognized by physicians. The oily nature of the one interferes very materially with the ready absorption of the medication, and the difficulties attending their preparation often result in faulty incorporation and imperfect distribution of some of the ingredients. Both are unstable in very hot weather and require great care in keeping.

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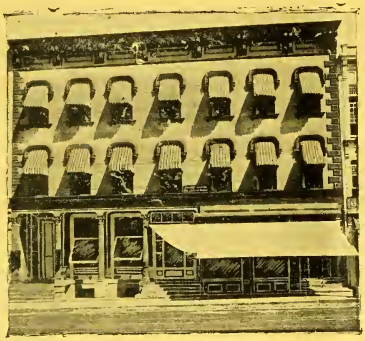

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summer. They are applied locally by coating slightly with vaseline and inserting well up into the vagina, where in the presence of moisture they slowly disintegrate, bringing the medicinal agents into prolonged contact with the mucous surface of the vaginal tract. After inserting, a napkin or bandage should be applied and the use of the tablet should be followed after some hours by a douche of warm water either plain or containing an antiseptic. According to conditions a disintegrating tablet may be used once or twice a day or every alternate night at bed-time. While these tablets are primarily intended for local application in substance they are suitable for use in injection. As an injection they should be applied as follows: Drop two or three tablets into a cupful of lukewarm water, and allow them to soften. This will not require more than two or three minutes; then stir until all particles are thoroughly disintegrated, and add sufficient hot water to make one pint of solution of the proper temperature. Should there be any coarse particles allow them to subside before filling into syringe.

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One of the things we have often said but that is well worth repetition is, that the treatment of the phthisical in summer is of the utmost importance; and that Hagee's Cordial of Cod Liver Oil is the hot season's representative of the fatty oil of the winter. This is more than a pleasant stomach tonic, it is something the wise doctor does not neglect.—American Journal of Clinical Medicine.

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X-Ray Burns.

At the 337th regular meeting of the New York Dermatological Society held Nov. 28, 1905, the subject of X-ray burns was taken up, and Dr. Henry G. Piffard, Emeritus Professor of Dermatology in New York University said, according to the Journal of Cutaneous Diseases, "that he had obtained the most benefit in treating these conditions from Antiphlogistine, chloride of zinc, high frequency current and ultra violet rays."

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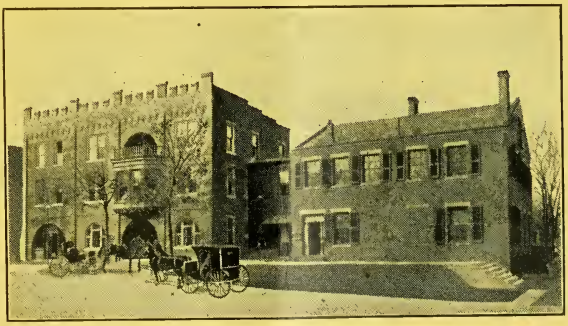

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Liquid Medicines vs. Pills, Tablets and Granules.

Despite the pernicious activity of manufacturers of ready made pills and tablets in flooding the market with all possible substitutes for tinctures, fluid extracts and solutions, it has been amply demonstrated that these solid forms of medicine cannot compare in efficiency or in usefulness with the equivalent preparations given in liquid form.—Journal of the American Medical Association, June 23, 1906.

"Manna" From Harvard.

"Out of the eater came forth meat, and out of the strong came forth sweetness."

Dr. Frederick C. Shattuck is Professor of Clinical Medicine in Harvard University, and his address on the Value of Drugs in Therapeutics is notable in several respects. It is notable first for its healthy anti-nihilistic appreciation of drugs in the treatment of disease. While we believe that Professor Shattuck puts rather too narrow limitations on the value of drugs, still coming from a Harvard professor, we must be satisfied with small favors. The address is notable in the second instance for its having been delivered before a homeopathic body—The Boston Homeopathic Medical Society—thus offering us further proof that the chasm between the various medical "schools" is being bridged over, the bonds of union becoming closer and more numerous. And thirdly and more important, the address is notable for teaching just exactly what we have been teaching these many years. Let us hear what Dr. Shattuck says: "It seems to me, he says, that the leading therapeutic principles can be stated somewhat as follows:

"First. Do no harm. This principal seems to be well met by the homeopathist who uses the infinitesimal dose. He does not harm save in so far as he may miss doing good. And it is still better met by our teaching—to start with small, not infinitesimal—doses of the best procurable drug, and give it until results are seen.

"Second. Try to see as clearly as possible just why you give a drug, your purpose in giving it, whether as a specific, curative, palliative, or as a placebo."

Exactly what we have been teaching for years—give each drug only for a definite indication.

"Third. As far as you can, give a drug uncombined. This is a general rule subject to many exceptions. Rules, however, are made to break. They are our servants, though we too often allow them to be our masters. But in breaking rules we must use our brains, and exercise that which most of us avoid so far as we can."

Another therapeutic truth which we have been teaching for many years, and which we could not express in a better manner if we tried. We have always taught and asked the profession to administer drugs singly whenever possible, but not being faddists, not being wedded to one idea, we recognized that there are instances in which a combination of drugs acts better than any one single drug can, and in such cases we advocated a combination of drugs. We know that one drug may act synergistically with another, or it can modify its action, diminishing its undesirable by-effects, render it milder in one respect and stronger in another—in all such cases we never hesitated to advise a combination of drugs.

But in this paragraph (three) Dr. Shattuck really says more than he perhaps meant to say. "As far as you can, give a drug uncombined." Why does he say that? Because he wants a clear-cut action. And this is a direct plea for active principle therapy. For opium is not an uncombined drug; to administer opium with its twenty-odd alkaloids is almost as irrational as it is to combine twenty isolated alkaloids and administer them in one dose. Jaborandi or pilocarpus with its antagonistic alkaloids is not an uncombined drug. And when we want clear-cut, positive, definite action, we must administer the active principles.

"Fourth (and last). In using an efficient drug, be as sure as you can of a good preparation, and then give it until something happens—either the desired effect or evidence appears that the limit of toleration has been reached, what is called the physiological, but what I should prefer to call the toxic effect. Disregard of this law is, I believe, responsible for many therapeutic failures."

This sounds very much as if it had been taken from some issue of the American Journal of Clinical Medicine. Small doses frequently repeated until effect—doesn't this sound familiar to you?

We will conclude with the closing paragraph from Dr. Shattuck's address, which might be well heeded by some of our ultra-scientific physicians: "Scientific medicine" says he, "is open to the danger of going to the extreme of therapeutic nihilism, of disregarding the individual, of forgetting that while our knowledge is imperfect and the big thing is to find out the true nature and cause of disease, the present day sufferer demands, and has a right to demand, all the aid that our knowledge, imperfect as it is, permits."

In other words this means that while we are hunting about for the ultimate cause of disease, we must not permit our present patient to die, but must give him all the aid, no matter from what source obtained, all the help that our present day knowledge—scientific or empiric—affords.—From the American Journal of Clinical Medicine.

As it is about time for the annual crop of hay fever, physicians will, of course, be thinking over the list of remedies that give relief. First comes suprarenalin, the most convenient form of which is suprarenalin solution, a stable and non-irritating preparation of the active principle of the suprarenal substance. This is applied locally on pledgets of cotton or by spraying into the eyes and nose in strengths varying from 1:10,000 to 1:1,000, and is also given internally in 10 to 20 drop doses three or four times per day. There is also suprarenalin ointment, 1:1,000 which is especially adapted to eye, nose, and throat work, as it is very bland, and its effects are more lasting than those of anything of the kind.

Taking all things into consideration, suprarenalin is the most satisfactory remedy for hay fever.

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to do their work thoroughly and without bias, viz.: Drs. Lydston and Graham, of Chicago; Eve, of Nashville; Cordier, of Kansas City, and Wiggin, of New York.—Louisville Medical Journal.

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The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, **finds that no two of them are identical**, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution**, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hyphophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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the most remarkable in the history of this body —remarkable not only in size (over 4,500 registered members were present), but also in the perfection of the local organization (due to the remarkable executive ability of Dr. Burrell and his efficient aids on the Committee of Arrangements), in the enthusiasm felt and expressed by all present, and, finally, in the bitter condemnation by some of the most prominent men in the Association of the arbitrary methods of the Secretary Editor. Never has the Association been so prosperous as it is today; it has a membership of over 20,000—one-sixth of the estimated number of physicians in the country; it has a surplus of over a quarter of a million dollars, and this surplus is increasing at the rate of more than $25,000 a year. All loyal members of the Association, *quorum pars sumus*, must rejoice in those signs of prosperity and must give due credit for the same to the Secretary-Editor, to whose genius for organization this increase is largely owing. Since he assumed control of the Association, the membership has increased, in round numbers, from 8,000 to 20,000 and the outside subscribers to the Journal from 2,500 to 17,500, which should have brought an increase of $140,000 per annum to the treasury of the Association. Credit must also be given to the Treasurer of the Association, a practical financier and a bank director as well as a popular physician, whose wise investments of the surplus funds have apparently added not a little to the balance in the treasury. To the salaried organizer of the Association, sometimes dubbed the "walking delegate" by the disaffected, praise is also due from those who approve of the present system of organization of the American Medical Association. It is true the methods which he has thought wise, or has temperamentally been compelled, to adopt have made many bitter enemies of himself and of the body which he is assumed to represent; yet the fact remains that he has succeeded in the creation of many county societies and has thereby increased the potential membership in the Association.

So far, so good. The American Medical Association today is larger and richer and *quoad hoc* more powerful than ever before. But is it stronger in itself, and assured of continued progress? "Let him who standeth take heed lest he fall." This saying applies to organizations as well as to those who rule the organizations. Less than two years ago there were three enormously rich and powerful life insurance companies in the United States; their surpluses were in the neighborhood of $100,000,000; the men in control of them were among the financial magnates of the country, respected and envied, and anyone who had ventured the suggestion that there was danger to the companies in this prosperity would have been scouted. Today these same companies are putting forth every effort to regain the confidence of the public by instituting investigations, suing their former chiefs to enforce restitution, and reducing salaries (including those of the medical examiners), and the pitiable condition of those who brought them to this state of seeming prosperity by their deceitful methods is known to all. The cause of the spectacular *debacle* is also known. The fall

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was the logical and inevitable consequence of the policy of concealment so long followed by those in control. The published reports dealt in generalities and studiously avoided details. The members of the mutual companies, who were theoretically part owners with a right to know how their money was being spent, were kept in ignorance of the facts and "jollied" by the magnificent totals into believing that they were coining money by living and would make more by dying.

The financial reports of the American Medical Association are disquietingly analogous to those of the insurance corporations. They deal in glittering generalities—and the surplus increases at the rate of $25,000 annually. But what are the items of expenditure? In the report for 1905 the expenses of "organization" are set down as $7,797.04; organization of what? The sum given away in salaries and wages was $78,-874.70; whose salaries? For "medical legislation" there was spent $1.234.90. Under the item "Association" we find $10,062.30 expended. The average circulation of the Journal was 38,006, and the income therefrom should have been in the neighborhood of $192,000; but the total amount received from dues and subscriptions was only $147,651 61, leaving over $44,000 unaccounted for. And so on. What the members of the Association want is frank publicity in the financial reports—not indefinite items which defy analysis. Herein lies danger to the Association. Such a report as that published in the Journal of June 16 is worthless and worse—it is not frank. What the members have a right to know is what "organization" means, what "salaries and pay roll" means, what "association" means, why more than 23 per cent. of what should have been received in dues and subscriptions remains unaccounted for, and so on. Every member of the Association is the owner of an undivided fraction of the property of the Association, and he should be told how this property is being managed; he wants something more than the assurance of a retiring president, in virtue of his office a mere figurehead, that everything is all right and that the rulers are honorable men. There may be no "ring" or "clique," in the evil acceptation of

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the terms, but there is want of frankness on the part of those who control the Association which is disquieting and tends in these days of "graft" to arouse grave suspicions. These may be, and we believe are, unjust. They are, however, bound to grow so long as those who have charge of the money of the Association make unsatisfactory reports which suggest a desire for concealment. The only way for them to purge themselves of suspicion is to take all the members into their confidence and to publish a clear and definite itemized report of receipts and expenditures, and then have the report audited by a committee of members, not by a local firm of expert accountants.—Medical Record.

Carcinoma of the Bronchus and Liver Associated with Glycosuria in a Youth.

Hall and Tribe (The London Lancet) mention the case of a boy of seventeen years who was admitted to the University College Hospital, with cough, shortness of breath and loss of weight. The past and family histories were negative. He first noticed the cough about three months before admission and expectorated large amounts of bloody sputum. A month before he was admitted he began to complain of itching and developed an unnaturally great appetite and thirst. Then the amounts of his urine increased. A few days before admission his hands and legs began to swell. On admission he was pale, thin and cyanotic. Temperature 100.6 degrees F. Both legs were covered with gangrenous purpuric spots. There were several edematous swellings on the trunk. The liver was enlarged. There was marked bronchial breathing. He had diarrhea. The urine was loaded with sugar and gave a faint reaction for diacetic acid. He died suddenly the day after admission. The bronchus of the lower lobe of the left lung was the seat of a columnar celled carcinoma. There were smaller areas in the upper lobe. The liver showed many large nodules with softened summits. There were small deposits in the retro-peritoneal glands and the posterior cervical glands.

Some Obscure Cases of Urinary Disorder.

C. Elsworth, in The London Practitioner, discusses urinary disorders, reciting ten cases occurring in his own practice. He concludes that cystitis lasting for long periods, due to primary lesion of the bladder, and accompanied throughout its entire course by acid urine, is much more common than is generally supposed. The occurrence of urinary disorder with acid pyuria, and frequency of micturition, does not mean that a bladder lesion is excluded, and that the lesion is necessarily in the kidney. It is possible to have extensive disease of the kidney without any urinary symptoms whatsoever, and that, too, with normal urine. There may be urinary symptoms consisting of pain, frequency of micturition, and acid pyuria, without disease of either kidney or bladder, the symptoms being due to a lesion in the ureter. The various organs are so intimately connected that the symptoms produced by disease of one may be common to all. The differentiation is only possible by physical examination, in which the cystoscope gives valuable aid. In certain limited numbers of cases, the administration of a pigment, such as an aniline dye, facilitates the recognition of a partially or completely blocked ureter.

Serum Therapy by the Mouth.

Paton (British Medical Journal). For eight years Dr. Paton has used serums by the mouth. Thus used their action is neither antitoxic nor antibacterial. But the theory which best explains their action is that of tissue resistance. The oral use of normal plasma of the horse, sheep, and ox in drachm doses four times a day restores lowered nutrition. The reaction leading to restored function is obtained in the presence of infections to which the animal itself is refractory. The serum of the horse and sheep is of great service in tuberculosis, but is valueless in influenza. Ox plasma is of the greatest service in influenza, as the animal is extremely resistant to that infection. The antidiphtherial serum is re-enforced by the oral administration after it has been given beneath the skin. In such cases it materially assists the recuperative powers.

Buttermilk in the Gastro-Intestinal Disorders of Infancy.

Stoess (Corr.-Bl. f. Schweizer Arzte) has employed buttermilk in certain gastro-intestinal disorders of infancy. As a food for infants it has recently been recommended by de Jager and Teixeira de Mattos. It contains 2.5 to 2 7 per cent. of albumen, 0.5 to 1 per cent. of fat, and 3 to 3.5 per cent. of sugar. Teixeira de Mattos gives the following directions: A level tablespoonful (10 to 12 grams) of fine rice or wheaten flour is stirred in a litre of buttermilk, which is placed on the stove and constantly stirred until it has thrice been on the point of boiling over (for about 25 minutes). Two or three heaped tablespoonfuls (70 to 90 grams) of cane or beet sugar are then added. As buttermilk is acid the utensils should not be of any metal which is soluble in acids. He follows Heubner's recommendation and adds slightly less sugar (50 grams of cane sugar). The food is then poured into Soxhlet's flasks and boiled for a further three minutes. Unless it is poured into several flasks (one for each feed) an upper watery layer forms on standing.

Case 1.—A male child of prosperous parents weighed at birth 3,640 grams. At first it throve on cow's milk and water, but afterwards became constipated, and, in spite of change of diet and the addition of various infants' foods, emaciated. At four months the weight was only 3,215 grams. Six feeds, each of 100 grams, and later of 120 grams, of buttermilk, were given daily. The bowels at once acted normally. This diet was continued (except during ten days, when there was diarrhea) until June 23, when ordinary cow's milk was gradually substituted. On that date the weight was 5,410 grams, and on July 15, 6,500 grams. Thus in the first four months weight was lost, but in the second four months it was doubled.

Case 2.—A female child at nine months weighed 3,640 grams. At nine weeks there was an attack of diarrhea and vomiting, and the weight fell from 4,000 to 3,500 grams. Since then, in spite of numerous changes of wet nurses and of foods, she did not thrive. There were constant constipation and vomiting, which were uninfluenced by gastric irrigations and enemata. At the ninth month the weight was practically the same as at the third. Buttermilk (120 grams for each feed) was, on June 3, gradually substituted for the infants' food which was previously given. The stools rapidly became normal, and on July 20 the weight had increased to 5,050 grams. Cow's milk was then substituted and was digested perfectly.

Case 3.—A child, aged two years and two months, weighed only 4,275 grams. It had always been fed artificially and with a variety of milks (including goat's) and foods. It was of about the size of a six-months-old baby, and

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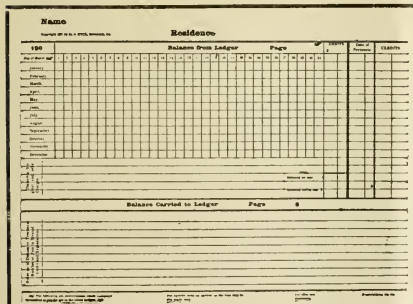

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scarcely more intelligent. In hospital, between December 7 and February 17, there was no improvement. Numerous furuncles and slight pyrexia developed. Buttermilk was then given. There was rapid improvement; and though there were two attacks of convulsions, the child was discharged on March 29, weighing 6,120 grams, and in good condition.

Buttermilk is thus of special service in cases of infantile atrophy from chronic dyspepsia from which there is no intestinal irritation. If there is diarrhea alternating with constipation, it may occasionally be given in the latter periods with advantage, but is harmful in cases of acute diarrhea and vomiting. Only buttermilk which has been obtained by the most cleanly methods is admissible.

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Enterospasm Simulating Appendicitis.

Hawkins (British Medical Journal) while advocating prompt operation in most cases of appendicitis, believes, nevertheless, that at present the appendix is often removed unnecessarily. There is a tendency to look upon every pain in the ileocoecal region as appendicitis and to operate. Often, the attacks of pain remain uninfluenced by the operation for the reason that they were not produced in the region of the appendix at all. Intestinal neuroses, simulating appendicitis, occur, though rarely, and mucous colitis is not infrequently mistaken for the same disease. The greatest of these sources of error, however, is enterospasm. This condition may affect any portion of the gut, but occurs most often in the coecal region and in the descending colon. It is found most frequently in neurasthenics and may present a very various picture. It may produce definite attacks of acute pain, but more often appears as a dull, more or less vague, pain, sometimes lasting for months and usually referred to the left or right iliac fossa. In the latter case it is apt to lead to a false diagnosis of chronic appendicitis; in the former to one of disease of the sipmoid flexure. He reports a number of such cases, wrongly diagnosed, in some of which the spastic stenoses of the gut could be observed during the operation.

Tuberculosis in Infancy and Childhood.

Matthews (Brit. Jour. Child. Dis.) believes that the majority of tuberculous infants appear to be infected from tuberculous relatives, not from the milk of tuberculous cows, even in cases where the infection may appear to have been through the alimentary system. In 25 successive autopsies upon tuberculous patients in the Newcastle Sick Children's Hospital, which he has studied, the lungs showed tuberculosis in 23 cases, only two of these entirely miliary. The bronchial lymph nodes showed macroscopic changes in 19 cases, the mesenteric in 20. The intestinal mucosa showed changes in 15 cases, in all of which there was advanced pulmonary tuberculosis. In this series the bronchial and mesenteric lymph nodes were affected with almost equal frequency. In only four cases were the mesenteric nodes involved without the bronchial, and three had tuberculosis of the bronchial but not of the mesenteric nodes. According to the writer the histories furnish no means of foretelling whether the bronchial or mesenteric nodes have been primarily affected, nor does an autopsy afford a more certain clue in the majority of cases. Of the cases in which the mesenteric nodes were affected there was a history of constant association with another tuberculous individual in 50 per cent., while they were involved in 66 per cent. of cases which were fed entirely at the breast or on proprietary foods until after the onset of symptoms. From these facts the writer argues that it is fallacious to compute the frequency of milk infection from the proportion of cases of involvement of the mesenteric nodes without attention to the history of feeding and of association with cases of tuberculosis.

Treatment of Warts by Internal Remedies.

Hall (British Journal of Dermatology) reports the case of a girl suffering from multiple warts, one hand and wrist containing as many as 367. No local applications were made, but a mixture of magnesium sulphate with sulphur was given three times a day for three weeks. Later the treatment was changed to a confection of sulphur and confection of senna, to be later followed by aloin and tincture of nux vomica. Under the latter treatment, which was continued for about one month, it was noted that the warts began to diminish in size and later nearly disappeared, a few remaining on the fingers.

The Boston Session of the A. M. A.

The session of the American Medical Association at Boston, from all accounts, was a remarkable one, from the point of attendance, scientific work done, sensational rumors of what was to be done to certain officers of the Association, candidates for re-election, and parliamentary disposition of certain resolutions calling for the investigation of the affairs of the Association.

The latter matter was the most unfortunate occurrence that could possibly have happened. A resolution introduced by Dr. H. O. Walker, of Detroit, contained the following preamble: "Because of these facts, there has arisen the sentiment which bids fair to be disagreeably large, unless the cause upon which it feeds be removed, viz: "Ignorance of the real truth." We are astonished, as are so many members of the Association with whom we have talked, that the friends of those most vitally interested should have allowed this resolution to be tabled. This course can have but one result, that of causing more talk of corruption and mismanagement, and they should realize that an investigation will come, and come soon. It has been postponed one year, it possibly may be stayed at the next meeting, but it is inevitable. A mere hint at mismanagement, a suspicion of distrust on the part of a single member of the Association should have been the cue for a searching investigation to have been demanded by the Secretary-Editor and Treasurer and the Board of Trustees.

As stated in a previous editorial, the Association is fast becoming a gigantic trust, with enormous funds at the disposal of a few who manage to perpetuate themselves in office. The twenty thousand or more members of the Association for their annual dues receive only the official organ of the Association, are to be charged seven dollars for a Medical Directory, issued by a press which belongs entirely to them, and compiled through their assistance to a great extent.

We do not see of what use this fortune, being amassed by the Association, can be to the profession at large, supporting, as it does, but a few who are on the inside, and those on the outside can't learn what sum is being paid them. We fail to see why the Association should be such a money-maker, so largely at the expense of the members and they get so little benefit from it. If the members of the profession who are not members of the Association are to be boycotted, as was stated by one on the "inside" not long ago, it is time we called a halt, and began such an investigation as Dr. Walker's resolution called for. The investigating Committee named in the resolution could certainly have been trusted to do their work thoroughly and without bias, viz.: Drs. Lydston and Graham, of Chicago; Eve, of Nashville; Cordier, of Kansas City, and Wiggin, of New York.—Louisville Medical Journal.

The Boston Meeting.

The resources of the Association have also increased correspondingly, for we find that at this time there is a surplus in the treasury of over $236,000, and the annual surplus over all running expenses is $25,000. It can be seen from these figures that this Association is possessed of great power for good or evil as it is managed, and the hope is that it may be so directed in the future as to advance the cause of liberal medicine and journalism rather than become a great trust engineered for the purpose of suppressing healthy competition and personal independence in medical practice, medical journalism, and pharmaceutical progress, as it has unquestionably at-

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tempted to do in the past in a high-handed manner.

We note as a healthy sign, however, that the wave of revolt and general indignation on the part of the independent medical press of the country has been felt by the Association, possibly in time to save it from the consequences that must certainly follow with disaster and ruin if it continues its past policy towards the independent element in the professions of medicine, journalism, and pharmaceutical manufactures. As a sort of placebo to the offended journals we find that the Committee "disclaimed any intention on the part of the National Association or on that of the State Societies to injure the independent medical journals owned or edited by physicians. These had in the past done excellent work for the development of medicine and the diffusion of the knowledge of medical advances. Many of them still continued to accomplish this valuable purpose. The House of Delegates then was asked to recommend to the support and patronage of the members of the American Medical Association such medical journals as did not receive unethical advertisements."

Thus by the permission of the great Octopus at least a portion of the journals "owned by physicians" will be spared a little longer, and if perchance they can come up to the standard of cleanliness from the viewpoint of the advertising critic they may be recommended to the members of the Association. Well, we venture to say that with the greater illumination which the independent medical press will throw on the workings of this Association and its money-making schemes it will be at least as considerate and maybe a little more respectful at its next meeting.

The Handwriting is on the Wall: Imperial Methods in Medical Politics.

It was Daniel who interpreted *mene, mene, tekel upharsin.* I paraphrase it: "Octopus, you have been weighed in the balance and found wanting" to boss things and run the "mersheen," and you are up against it.

By reference to another part of this issue it will be seen that a resolution introduced in the House of Delegates by H. O. Walker, of Detroit, at the recent Boston meeting, asking for an investigation of the financial management of the Octopus was laid upon the table! Such is the autocratic power behind the House of Delegates. The House controls the Association; the Trustees the House, and the Secretary-Editor the Trustees. Witness a resolution adopted empowering the Trustees to change the place of meeting elected by the House of Delegates —if it didn't suit 'em. (Coe had a close call. They would gladly have cut out Portland had this come earlier). Thus the power of nullifying the action of the House is put into the hands of the Trustees, which means the Secretary-Editor—The Czar! The fact that an investigation was shut off gives ground for suspicion that there is something—what is it?—that will not bear investigation. The 23,000 members and the 100,000 physicians not members have a right to know what is done with the $275,000 annual revenue and the $25,000 annual profit on the Journal. But they are denied this right, and are told to "shut up." That is about what McCurdy and McCall, and Perkins at first told the policy holders. They lose their heads. That is about what Louis XVI told the *rabble* when they asked for bread. That is about what Charles I. told Parliament. That is about what poor, weak little Nicholas has told the Douma. Charles lost his head, Louis lost his, and the Czar will lose his. The handwriting foretold the fall of Babylon. It foretells that of the Czar of all the medical profession.

In Texas we have a splendid organization with an enrolled membership close to 3000. Let it throw off the yoke, assert itself, and oil will be thrown on the troubled waters. Raise the Lone Star flag once more. Be we men and submit to be bossed and outraged? Already members are leaving the Octopus at the rate of one hundred a month. See Secretary's report elsewhere. "1208 were dropped during the year; 171 deaths, 619 resignations" (fifty a month every month) and the balance (presumably) for non-payment of dues—same as resignations. True, there was a net gain of 4300. This was largely accessions from New York State, whose "new code" State Association has been whipped back or coaxed back. They bring in several thousand. This was a master stroke(?) of "the benevolent assimilation" policy, the homeopathic leveling process now going on,—"unifying the profession."

It will be remembered that in 1884 certain leading New York delegates favored consulting with homeopaths, and, in consequence, were refused admittance to the A. M. A. at the Milwaukee meeting, I think it was (in 1884). They split off and organized a separate State association, and were known as the "new code men." They were never afterwards represented in the A. M. A. They come back now and bring their tails behind them,—and all is lovely. And so goes on the leveling process, the loaf having been leavened with homeopathic leaven under the skillful manipulations of the redoubtable disciple of Hahneman, the Secretary-Editor of the Octopus.

But this big addition to the ranks was exceptional and can not occur again. In future the falling off will exceed the gains, and when the big Western State Medical Association now being organized by Jabez Jackson is inaugurated, the Western men will secede in a body. Then comes the seceding Southern States and the downfall of this modern Babel, where "medicine," homeopathy, faith-healing, osteopathy and voodoo are all represented and spoken.—Texas Medical Journal.

Editor CHARLOTTE MEDICAL JOURNAL:—

Ainhum is described by Dunglison as a spontaneous amputation of the little toes, occurring only among negroes of pure African blood. Though this trouble is extremely rare, it is thought to occur more frequently in South America than in this country. The poverty of the literature on this subject induces me to offer for record two cases of some interest; these occurred in mother and daughter,—rather suggestive of heredity; one was of the little toe, the other of the little finger, showing that it does not always affect the toes, unless, resorting to the questionable method of delving into evolution, we should say that the 'coon' lost a toe off the front foot.

This trouble is painful, but as it is usually thought by the patient to be a small matter until an advanced stage has been reached, the surgeon rarely sees them until naught but the clippers offers relief.

W. E. JINKINS.

The American Medical Association.

We heard many expressions of dissatisfaction on account of the manner in which the Association affairs are conducted—especially that in connection with the Journal of the American Medical Association.

The impression has gone forth that the secretary-editor receives five thousand dollars annually, while we understand from a reliable source that he draws double this amount.

It is also said that another physician who travels under the direction of the secretary-editor is paid out of the Society's funds five thousand dollars annually.

We fail to see why these items and many others do not appear in the financial reports.

The feeling among the members is growing so strong that ere long some changes will come.—The Medical Recorder, Shreveport, La.

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SOLE AGENTS.

The Ownership of Papers Read Before Scientific Societies.

The most serious inroads that official organs are making into the domain of the independent medical press has been the restriction of publication of papers read before scientific societies to the official organ. A few years ago there were no medical journals that were owned by medical societies. The American Medical Association published its papers in the form of transactions which were issued as annual volumes, and it did not preclude the members from publishing their papers in medical journals. With the establishment of the Journal of the American Medical Association it was required that those who read papers before the various sections should submit a full abstract or the original paper for publication in the journal of the association. So far as we are aware the Journal of the American Medical Association has never assumed that the title of the paper resided wholly in the Journal, but it has refused to publish papers which were printed elsewhere prior to the time that they could appear in the Journal. The tendency of the State journals is to establish a fare more rigid rule, and to assume that ownership of the paper passes to the State society organ when it is read at one of the meetings.

This same question has been raised regarding the Toronto meeting of the British Medical Association. According to the rules adopted "all papers read are the property of the British Medical Association, and may not be published elsewhere than in the British Medical Journal without special permission." The Montreal Medical Journal in commenting upon this says there is no statement as to who is authorized to give the permission, but that it proposed to be guided by the authority of the reader. It further states that it is excellent journalism to endeavor to secure so large a body of material for exclusive publication at No. 2 Agar Street, and if that is the intention it is the opinion of the Montreal Medical Journal that it should have been specifically stated, and that it should be the right of the reader of the paper to choose the medium through which he will seek publication. It believes that the prestige of the British Medical Journal is so immense that it can well afford to adopt this sound principle of freedom, allowing to each reader and each journal entire liberty of action. That this is sound doctrine no one will question, and is quite as applicable to the various State society organs as it is to national publications, both in this country and in England. If the other rule is adopted and strictly adhered to, that all papers read before medical societies must appear solely in the official organs, it will do much to eliminate independent medical journalism.—Editorial in "Medicine."

Variability of Digitalis Preparations.

Attention has been called to this subject once more by a paper in the British Medical Journal of September 16, 1905, by Dr. Hardman. The author states that in his experience some specimens of digitalis are very deficient in active principle and practically inert. He also adds that digitalin, which is a term rather loosely applied to a complex substance, does not always exercise the effects which are desired. As an illustration of the lack of reliability of this product, he tells us that he recently ordered from a first-rate wholesale house a number of pills containing one-fiftieth of a grain each of digitalin. The first night he took one, the next two, the next four, and the next five; in other words, the equivalent of one-tenth of a grain of digitalin in the last dose, without any effect whatever being produced. He then proceeded to take seven in one night, and the next night ten. This last dose contained one-fifth of a grain of digitalin.

The only result of a dose of ten pills was some gastric discomfort, but not the least effect on the circulation.

In view of these remarks concerning the uncertainties in digitalis therapy, it seems especially apropos to cite an opinion regarding a new digitalis derivative. This substance is known as Digalen—Digitoxinum Soluble Cloetta.

In Therap. Monat. Dec. 1905, Dr. R. Freund discusses various preparations of digitalis. Incidentally he strongly recommends digalen. He states that, in his experience digalen has no cumulative action, does not give rise to vomiting, and is the only derivative of digitalis which can be injected into the veins. Such an injection is painless and only needs to be repeated every 24 hours; its effect is evident in from two to five minutes in a rise of blood pressure of about 24 hours' duration. The author has employed digalen in one case of cardiac weakness after chloroform narcosis, in two of mitral insufficiency with dropsy, and in one of pleurisy complicated by cardiac weakness. The preparation was well borne by the patients, and in each case gave good results. Dr. F. finds digalen to be the most satisfactory preparation of digitals at present in our possession.

Combines Efficacy with Safety.

In the practitioner's daily life there is ever an opportunity to exhibit an antipyretic and pain reliever, which combines efficiency with absolute safety, for the benefit of his patients and credit to himself. Prior to five years ago, I had used the various antipyretics and analgesics with fear and trembling, feeling that for the decline of every degree of fever the heart suffered in proportion. However, since I have used Antikamnia Tablets I suffer from no fears on the above score.

A brief outline of a few clinical cases, wherein this remedy was used with unvarying success, will doubtless be of interest.

Case 1—H. S. aet. 19 was taken with a prolonged and severe chill, and rise of temperature, followed by swelling of both ankle joints, exquisitely painful. Diagnosis: Acute inflammatory rheumatism; salicylate of soda in large doses ordered with very little result, in fact with no appreciable effect. Antikamnia Tablets were ordered, one every three hours. After the first few doses the patient was much more comfortable, in fact, comparatively free from pain. The joints were continuously enveloped in cold packs and a tablet of Antikamnia ordered to be taken every four hours. The young man made a perfect recovery in six days and at no time during his illness were any heart symptoms noticed.

Case 2—Miss B. was subject to the most excruciating pain before and during her monthly periods. An examination revealed no organic trouble. She always spent several days of the month in bed. Several medical men had prescribed for this lady with only a modicum of relief. Antikamnia & Codeine Tablets were prescribed with marked amelioration of the pain before and during the flow. She still continues to take these tablets and suffers little or no pain while menstruating.

Case 3—Mr. Wm. W., a young man of 22 years, consulted me regarding his condition. He had been subject to headaches for nearly a year, from no apparent cause. The pain was so severe that he was often totally incapacitated for business. I gave him Laxative Antikamnia & Quinine Tablets, instructing him to take one every two hours. The result was entirely satisfactory and he always finds prompt relief by the use of these tablets.

Case 4—Mr. J., a clergyman, thoroughly convalescent after a severe attack of pneumonia, was troubled with a short hacking cough which annoyed him exceedingly. Antikamnia & Codeine Tablets given as required, entirely relieved his condition.

In conclusion, when a prompt and safe antipyretic and analgesic is indicated, I shall continue to prescribe Antikamnia Tablets alone, or in some of the various combinations, feeling that I shall, in no measure, be disappointed in their immediate results. —R. Graham Hereford, M. D., July 10, 1906.

Researches Into the Origin and Structure of Moles and their Relation to Malignancy.

Fox (Brit. Journal of Dermat). The seventeen specimens which formed the nucleus of this article were embedded in paraffin and cut and stained by various methods. They were obtained from the following sources which the author divides into groups for the purpose of histological convenience:

Group A were taken from young infants showing the development of the mole. Group B were moles taken from adults. Group C were hard nævi. Group D were those becoming malignant.

From extensive study of these preparations the following conclusions are given: 1. That in those moles which show typical columns of cells the cells are epidermal in origin. 2. That there is a rare variety of soft moles which show no typical nævus-cell arrangement, and whose origin is uncertain, possibly mesoblastic. 3. That in the majority of cases nævo-melanoma are nævo-carcinoma. 4. That melanomata do arise in the skin entirely apart from moles. 5. That Cohnheim's view of the origin of malignant growths is not borne out by the foregoing observations of the histology of nævo-melanoma. 6. That the pigment appears to be closely connected with the prime cause by reason of which moles become malignant, whatever that cause may be.

Angina Pectoris.

Russell (British Medical Journal), has presented a new theory. He attributes the act to an exaggeration of the normal abdominal reflex which sets up peripheral vasomotor spasm. In digestion this vasomotor spasm is normally present, but is increased by alcohol or by excess of proteid, and in certain individuals there is an abnormal sensitiveness by which it may be readily excited to an excessive degree. This abnormal sensitiveness may be induced by tobacco, alcohol, or by constant excess of proteid food, and in those persons in whom it is present the spasm may be excited by slight strain, such as going upstairs or uphill, by emotion, or in some cases by simple palpation of epigastrium. The cardiac embarrassment may be due to debility of the heart muscle from anatomical changes, or to a temporary deficiency of the blood supply, he says that the common factor in all cases is the hypersensitiveness of the vasomotor center. The author says that tobacco, alcohol, and proteid food—excessive proteid food—are in a large degree responsible for the latter condition.

The writer has thus opened up a wide and important field for investigation. The dietetic principle becomes a very important factor in the prevention and treatment of angina pectoris.

Referring to Dr. Simmons The Texas Medical Journal says the independent Press should hold a convention and protest against the Medical Journal Trust. In union only is there strength. We can not effectively fight the combination in detail. But one thing is certain: the Czar is bound to go. He is marked for slaughter. A juster, more conservative, more popular and less presumptuous man should be put in his place.

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history of peritonitis. The diagnosis is only certain after puncture, and the treatment is complete extirpation. The prognosis is favorable if the viscera are not involved.

Treatment and Prophylaxis of Scarlatina.

Campe-Schnarsleben (Berl. klin. Woch.) calls attention to the attempts made to produce a serum that would antagonize the poison of scarlet fever as antitoxin does that of diphtheria. This was difficult in the absence of positive knowledge of the germ of scarlet fever, but an attempt was made to obtain the germ in pure culture. The best tissues from which to obtain the culture seemed to be the blood and the skin, next the kidneys, while the tonsils probably contain more of the complicating streptococci. He says that the streptococcus is not the cause of scarlet fever, but that the presence of this germ prepares the soil for the growth of the true causative germ. Scarlet fever is a comparatively simple disease when streptococcus septicemia does not complicate it, and the serious complications are due to the streptococcus. After obtaining an extract of the tissues mentioned, animals were inoculated with it, in order to obtain a powerful scarlet fever antitoxin. This serum was prepared at the laboratory of Marpmann, in Leipzig, and has been tested by various practitioners. Up to September, 1905, 67 cases of true scarlet fever were treated, of which 62 recovered and 5 died. Of the deaths, 2 cases in scrofulous children were complicated with typhoid, and the serum was given on the third day of the disease and had no effect. The third case was complicated by nephritis and bronchitis, and the serum was given when there were dyspnea and much albuminuria. Another had the eruption much delayed in appearance. The fifth was a young girl, who had the serum on the sixth day, and died of heart failure. The first three cases died as a result of complications, not from the use of the serum. The serum should be used only in pure, uncomplicated cases of scarlet fever, as it has no effect on the complicating streptococcus infection. In 13 of the cured cases the disease was severe, sometimes complicated by diphtheritic symptoms; 18 had albuminuria. When the serum was given at the very beginning of the disease the course of the latter was short, and the complications were few. The effect of the serum was shown in a short time after administration: the patients became less restless, headache was less, and head symptoms disappeared, temperature became lowered, and the pulse slower. In most cases convalescence was established after a few days. Pure scarlet fever is not more harmful than measles or rotheln. It is most important to use the serum as soon after diagnosis as possible, and in uncomplicated cases only. The question comes up whether this serum has a prophylactic value in persons exposed to the disease. While this is an exceedingly contagious disease, there are in all families persons who do not take it, and this complicates the experiment of immunization. The serum has been injected in about two hundred cases as a prophylactic. In a number of these instances it was noticeable that immunized children did not contract the disease, while others equally exposed and uninjected succumbed to it. This was especially so in a large tenement, in which the immunized families escaped and the others contracted the disease. In some cases there was a sort of abortive attack of fever ending in a few hours. In only two cases was true scarlet fever developed after injection with the serum. The serum was given by the mouth with the same results.

The Functional Importance of Leucocytes.

Grawitz (Med. Press & Cir.) says that attempt is being made to draw important conclusions as regarded proposed surgical measures from their in-

crease or diminution. Many surgeons consider the counting of the leucocyte to be as important as taking the temperature and the pulse. From this point of view the question of the function of the leucocytes was important.

The question of their origin was not yet answered with certainty. The sharp distinctions of the various kinds of leucocytes could not justly be maintained at the present day. Their morphology had been elaborated under the ægis of Erhlich, and his dried, colored preparations. But the clinicist, after the example of Virchow, should first examine the blood in its native state, and this should be done with every patient.

It was agreeable to chronicle a step in advance. After we have come to our limit as regarded refined microscopical technique, but using the ultra-violet rays of decomposed white light, i.e., the short waved rays, we get a clearing up of structure twice as sharp as before. As these rays do not pass through glass, a quartz object-carrier was required. They also allowed conclusions as to the chemical composition of the preparations. Probably they were metallic substance that refracted light.

We must ask what these cells signified. The nucleus of the cell must have a special function, and especially when the nucleus formed the chief mass of the cell. Where the protoplasm was further developed, the function of the nucleus became less important. In the embryo there were but few leucocytes in the blood. Lively development and activity of nuclei first came into play at birth. This was probably connected with the function of digestion. There were from 5 to 10,000 leucocytes in the cubic millimetre. Up to recently, it was taught that leucocytes were protective organs against the entrance of foreign material. But their function must be looked upon as having a much wider range. The following might be regarded as certainly among their properties: 1, phenomena of movement, wandering of leucocytes; 2, phagocytism; 3, oxydizing properties; 4, reducing powers; 5, absorbent properties in regard to material in solution (iron, iodine, lead, atropine, etc.); 6, assimilation; the leucocytes not only took up the bodies, but assimilated them; 7, fermentative action on break up of leucocytes; 8, absorption of albumen, the phenomenon of digestive leucocytosis; 9, transportation of the glycogen; 10, transportation of material also outside the tissues; 11, plastic activity of leucocytes, no repair of tissues; 12, antitoxic powers as regarded clinical results. We must, for the future, go to work a little more cautiously in our judgments.

The Therapeutics of Neuralgia.

Spitzmuller (Wiener Med. Wchschrft) describes the case of a patient, a woman thirty-two years of age, who had suffered for several years from trigeminus neuralgia of all three branches, on the right and left side alternately. The pain recurred every year in repeated attacks, which lasted for weeks and then gradually subsided. The patient was rarely entirely free from pain. The attacks persisted day and night, sometimes becoming so severe that the patient cried out and refused all nourishment. She rapidly lost strength, due to the constant insomnia. All the remedies employed by the author proved absolutely negative. The injection of morphine in large doses produced the phenomena of intoxication, instead of rest. The pain radiated from the left trigeminus to the occipital nerve, which likewise presented painful points on pressure. The situation becoming positively critical one evening, the author tried an injection of cocain-muriat. 0.30, Aqua destill. 20.0, Suprarenin gtt. vi. Half a Pravatz syringeful of this solution being thrown into the nerve at the point of origin of the left supra-orbital. The idea was the production of local anæsthesia of the affected nerve, and the effect was startling and instantaneous. The writer then proceeded to other injections at the point of exit of the infra-orbital and mental as well as the occipital nerve. The pain was gone entirely, a characteristic dull sensation in the area supplied by the nerve being the only remaining trace of the trouble. The patient was able to partake of food, for the first time in days, and then sank into a refreshing sleep. About twelve hours later, neuralgic pains appeared in the right supra- and infra-orbital nerves; but these were readily controlled by the injection of half a syringeful into each nerve, respectively. Nine further injections had to be given at a later date, all of which had a prompt effect. The patient has remained free from neuralgia for the last six and one-half months.

The Operative Treatment of Suppurative Meningitis.

Kummell (British Medical Journal) is of the opinion that the progress recently made by the operative treatment of suppurative and tuberculous peritonitis is such as to favor the supposition that active surgical intervention might improve the very serious prognosis in cases of diffused inflammation of the meninges of the brain and cord. Lumbar puncture, it is stated, has been followed by very good results in cases of cerebrospinal meningitis, and circumscribed suppurative meningitis set up by middle-ear disease and by compound fracture of the skull has been successfully treated by free removal of cranial bone and drainage. The prospects of operative treatment are generally regarded as much less favorable in diffused suppurative leptomeningitis, and according to Macewen such treatment is quite hopeless when the inflammatory mischief has extended from the base of the cranium to the cauda equina. He reports a case in which intense and extensive meningitis following a fracture of the base, clearly indicated by the presence of pus in the fluid removed by lumbar puncture, was successfully treated by making two large openings into the posterior cranial fossa and excising the exposed portions of dura mater. Another case is referred to in which free exposure of the spinal canal in the lumbar region relieved to a considerable extent the more serious symptoms of fatal diffused cerebrospinal meningitis following removal of a tumor from the sacrum.

A Case of Acromegaly with Destruction of the Hypophysis by Haemorrhage.

Bleibtreu (Munch. Med. Wchschrft) mentions the case of a young man seventeen years of age who presented the characteristics of simple giant growth, his body measuring 1.96 m. The nose, lips and forehead were disproportionately enlarged. Death occurred at the age of twenty-one of galloping consumption. The post-mortem examination of the cranial cavity showed the presence of a coarse and dense yellow tissue in the sella turcica, in place of the totally absent hypophysis. Microscopically, this was seen to consist of fibrous connective tissue interspersed with blood pigment. Only some very scanty remnants of hypophysis tissue could be demonstrated. These findings teach that acromegaly cannot be the result of increased function of the hypophysis, but that it must be interpreted as a negative phenomenon subsequent to destruction of the hypophysis.

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The Charlotte Medical Journal.

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Treatment of Teething.*

By J. Steven Brown, M. D., Greystone Retreat, Hendersonville, N. .

Mindful of the fact that some still consider dentition strictly a physiological process and therefore not amenable to treatment, I venture the opinion that teething often needs treatment and that dentition, comparable to parturition, is best accomplished under the supervision of a physician. During this vulnerable transition period, the pediatrist need not be meddlesome, but he should exercise the same "watchful expectancy" so necessary in the obstetrician.

As in parturition, as in puberty, as in the menopause, so in dentition, the patient would usually pass safely over the trying period without professional assistance; but we are confident that intelligent supervision in each class is a great life-saver and health-giver. For the sake of abnormal cases all cases should be watched.

What is the pathology of dentition? It is chiefly and briefly this: a congestion of mucous membrane, an over-stimulation of certain glands, and an irritation of the exquisitely sensitive fifth pair of nerves by continuous pressure on the terminals. You may readily see how such congestion may at least predispose to stomatitis and how such over-stimulation will give rise to an excessive secretion of saliva, usually followed by and probably causative of more or less alimentary disturbance.

Odontalgia in an infant, due largely to pressure in the matrix, may distract its speechless, helpless victim just as a jumping toothache completely unnerves an adult. Let this condition continue for days and weeks, and I, for one, will not deny the possibility of its causing convulsions.

How shall we treat dentition? Bring the baby to that period in the pink of condition. See that its food and drink are right, its habits right, its surroundings right, and keep them right. The proper food during the first year is mother's milk. Somewhere from birth to the ninth month, depending on quality and quantity of mother's milk and condition of child, mixed feeding should be begun. Gradually artificial feeding should be increased in accordance with the child's needs. The best artificial food is fresh, clean cow's milk. Properly modified, it is the only artificial food needed up to the sixth month, though in many cases, prepared rice, barley, oats or wheat acts well as a modifier.

Every case must be individualized. Study each patient and treat each case on its own merits. Teach the child regular habits in eating, sleeping and evacuating, and so prevent much trouble; preserve the mother's health and with her health, the baby's food supply, and so rear a happy, restful child, instead of a fretful bundle of nerves. Even with the best of nourishment and model habits, an atmosphere laden with dust in which abound tubercle bacilli or other disease germs, or exposure to mosquitoes, flies, or other germ carriers may prove a serious obstacle to the child's reaching the teething period in good shape. After all proper precautions have been observed in order to bring the child to and through this period safe, sane and sound, it sometimes suffers from stomatitis, indigestion and diarrhoea, becomes peevish and loses weight. The proximate treatment here, of course, is as previously indicated. Let the child continue to have proper food, drink, habits and surroundings. The immediate treatment depends on the nature of the disorder. For stomatitis, a bland antiseptic mouth wash may fill the bill. Accompanying this sore mouth may be indigestion with or without diarrhoea. Here the mild chloride, castor oil, a period of perfect rest for the digestive system, and more careful regulation of the diet usually suffice. Partially pre-digested food may be needed. Bismuth and sulphocarbolates are sometimes indicated. Enemata of normal salt solution are often advantageous.

In some cases the bracing sea breeze, or the cool, invigorating mountain air seems essential to baby's health. Nervous symptoms may be ameliorated by bromides or other sedatives. When the pressure is great, grave symptoms are often promptly dissipated, most marked and gratifying relief is afforded, and the restless little sufferer secures sweet sleep and refreshing rest after the ancient operation of lancing the gums.

This brief paper is not meant to be exhaustive—only a peg on which to hang a profitable discussion.

*Read before the recent meeting of the North Carolina Medical Society.

Asphyxia Neanatorum.*

By Dr. Chas. J. Sawyer, Salisbury, N. C.

Every obstetrician has to deal with asphyxia of the new born, and the condition is not of infrequent occurrence. It is a state of suspended respiration, due to any interference of the oxygenation of the foetal

*Read before the recent meeting of the N. C. Medical Society at Charlotte, N. C.

blood. The child in utero is in a state of apnea, and it derives its oxygen through the placental circulation, hence it has no need for air and therefore does not attempt to breathe. Anything interfering with this placental circulation cuts off the supply of oxygen and the child attempts to breathe with no air to inspire, with resultant suspended animation or asphyxia.

I shall not here go into a description of the foetal circulation, suffice it to say, however, that an intimate knowledge of this process is needed to fully appreciate the causes leading up to asphyxia of the new born.

As before stated anything interfering with the aeration of the foetal blood will produce asphyxia. Among the chief causes we find: pressure upon cord or placental vessels as probably occupying the first place; prolonged pressure on the foetal head, caused by a contracted pelvis or the fact that the child is of unusual size, resulting in a long, tedious labor. The pneumogastric nerve is probably irritated by this prolonged pressure on the head, which results in depression of foetal heart action, hence its inability to propel sufficient aerated blood to the tissues. Premature detachment of the placenta from the uterine wall is another source of asphyxia. We find this condition, however, more in placenta praevia than in the normally attached placenta. As soon as the placenta is torn away the continuity of the placental circulation is interrupted. The child hungers for its supply of oxygen which has been so suddenly cut off, therefore respiration is reflexly set up, with the result that the child inspires not air but amniotic fluid and other secretions of the uterus. If this reflex respiration is at all prolonged we may have an inspiration pneumonia to develop after birth of child, even if we are successful in relieving the asphyxia. Eclampsia and sudden death of mother are contributing causes of asphyxia. In eclampsia, respiration of the mother being temporarily arrested during the convulsive seizure, she is in a state of asphyxia, hence the foetal circulation is deficient in oxygen, effete matter is pumped into the tissues and we have the child born either dead or in a state of suspended animation. In the sudden death of mother the conditions bearing upon the child in utero are analagous to those just stated, viz.: From its supply of sustenance having been suddenly cut off the child is born dead or asphyxiated, the latter of course if delivery is delayed.

We find there are two stages of this condition: Asphyxia Livida and Asphyxia Pallida. In the former or first stage the skin of the child when born is of a blueish color, the face is swollen, the muscles are tense, the heart action is slow but forcible, and the respiratory effort is feeble or absent. In this condition the prognosis is usually good, for with suitable procedure at resuscitation the child is soon made to cry out, indicating the establishment of normal respiration. In the more advanced stage the skin has a deathly pallor, the lips are cyanosed, the muscles have lost their tone, the limbs hang limp, the head rolls about when the child is handled, the heart action is very feeble or not detected at all and all reflexes are absent. Even with this picture the child may yet be saved if treatment along the proper lines for resuscitation is instituted at once. Prognosis is of course grave, for with every known means of artificial respiration having been practiced the child often dies.

Treatment: In the simple forms of asphyxia very little treatment is required other than clearing the mouth of mucous with the finger of the obstetrician and holding the infant suspended by ankles with one hand, while with the other a few sharp, quick strokes are given the nates. In addition, if the child still does not breathe, immersion in a hot and cold bath alternately usually suffices to bring the little one around. When these simpler measures do not cause the child to respond, it should be placed on a table on its back, with its head hanging a little over the edge of the table, and a little lower than its body. With a soft cloth or piece of absorbent cotton wrapped around the finger, the mucous is generally wiped out of the child's mouth, and if the child should have inspired mucous the trachea should be cleansed by grasping chest with one hand and with finger of other hand gently stroking the trachea a few times from below upwards, then let finger press firmly at the top of trachea, the other hand still grasping the chest wall, blow into child's mouth when the inspired mucous will be forced out through the nostrils. Or, the mucous may be aspirated by introducing a No. 7 French catheter to the rima glottidis and the mucous sucked out by mouth of operator. If a short glass tube, containing a small piece of absorbant cotton, is inserted into catheter there will be no danger of sucking mucous into operator's mouth, nor will there be danger of infecting child by getting saliva from operator's mouth into trachea of infant. After the mucous is cleared out artificial respiration should be resorted to.

The two principal methods of inducing artificial respiration are those of Sylvester and of Schultz. It is not necessary here to go into a description of these methods, because they are both given in detail in most text-books on Obstetrics as well as Pedi-

atrics. Although I have had gratifying results in suitable cases with Schultz' method, yet it is not applicable in those extreme cases of Asphyxia Pallida when the muscles have lost their tone and the heart action is weak. In these cases the fauces and air passages should be cleansed and the child wrapped warmly, and with restoration of color and muscular rigidity, Sylvester's method should at first be tried, and then that of Schultz.

I think one of the difficulties with most of us is that we give up too soon. I have but recently had a case of Asphyxia Pallida with which I worked for one and a half hours before I noticed any attempt at respiration, when finally the well known cry was heard and normal respiration was established. In these extreme cases, when finally respiration has been established, there is great danger of relapse, and therefore the child should be watched, and sometimes cardiac stimulants may be indicated for the first twenty-four hours. In some of these extreme cases it may be necessary to practice direct insufflation by means of the soft rubber catheter, after removing mucous from fauces and air passages. Great care must, however, be exercised lest by blowing into the trachea too hard the air vessicles may be ruptured and the consequent emphysema ensue. In the event of the air passages not being thoroughly cleansed the child may die later of Atelectasis, though artificial means of resuscitation may have been successful.

There are some diagnostic signs that the obstetrician may detect of approaching intra-uterine asphyxia, such as convulsive efforts on the part of the child, a slowing of the feeble heart, and in head and transverse presentations, a discharge of meconium is symptomatic of a beginning asphyxia. By hastening delivery in these cases much may be done to lessen the degree of asphyxia.

Mr. President, this may appear to be a common place or trivial subject, but as I view it there is great responsibility for the physician in dealing with this condition. Let us, therefore, not desist from our efforts of resuscitation too soon. It is right and proper, of course, that we look after the mother well, but let us not forget the little one lying there so still who may yet awake to be the light and joy of the home.

Recent experiments have proved that most nuts have a large food value. They are rich in starch, proteid and fat. In comparison with the potato, the chestnut contains more starch, proteid and fat, but less mineral matter. Moreover, the chestnut seems to be the most digestible of all the nuts, especially after it has been roasted or boiled.

Forceps in Labor.*

By Dr. L. D Wharton, Smithfield, N. C.

It would appear from the title of this paper that the whole ground for the use of the obstetrical forceps is intended to be covered. That, however, is not my intention as it would necessarily consume more time than is allotted to one paper. My purpose, the rather, is to discuss some features, coupled with a few practical observations, for the use of forceps in labor, thereby limiting greatly the scope of this paper.

In the first place I desire to call the attention of the Society to the utmost practicability of this subject to every general practitioner. I believe it can be safely said that there is no one thing in medicine that is more pregnant, both with good and bad, to our patients and corresponding credit or discredit to ourselves than this. Good, because it presages a lessening of the throes and sufferings of child-birth and, yea more, a diminution of many possible evils both to mother and child. Bad, because an unintelligent use of the forceps is productive of all manner of harm. I deem it needless to enumerate the many avenues of danger, they are too well known to the medical man. A word in behalf of a more thorough technical preparation for the practice of this branch of our profession, I conceive, would not be amiss here. Doubtless there is more attention given the subject in our medical institutions of today than when I graduated some thirteen years ago. In most cases, I dare say, the first time we used the forceps in actual labor was after a few weeks or months, perhaps, of active practice. We have a patient suffering from prolonged, tedious labor; we are becoming uneasy; we imagine we have an impossible delivery; we see our patient, in our anxiety, growing weaker and weaker and the pains losing their expulsive force; in great perturbation and uncertainty we seize our forceps and with a vague idea of the necessities of the case we proceed to apply them, and after a successful "pull" we hasten to assure the attendants that delivery of a living child and, in fact any delivery whatever without its use, was an utter impossibility. I refrain from detailing the injuries the mother has received, as likewise the child. The operation may or may not have been performed intelligently, and I wish to say that I do not by any means desire to disparage it, and yet this is the manner of beginning with most practitioners of my age. It is to be hoped that a great change has been effected in later years.

Now, briefly, I desire to call attention to

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a few indications for the use of the forceps in labor. Those more often seen, with a few practical suggestions that appear pertinent.

1st. Deficient uterine contractions. While I have mentioned this first my experience has not taught me that it is most common. It occurs undoubtedly occasionally, but not so frequently as some would have you believe, indeed I believe it is rare. The contractions may weaken, and at times cease entirely, only, as it were, to get a hold and recur with redoubled vigor. I understand this indication to obtain only in conjunction with a weakened constitution generally, and therefore includes what is usually classed by itself, viz.: Danger to mother.

2nd. We are often confronted with danger to the foetus. This is most common in protracted labors, and I shall confine myself to this phase alone. It is not as generally considered as it should be as a cause of early infantile deaths. Prolonged pressure of from forty to eighty pounds upon the child's head impacted firmly within the pelvic cavity, it seems to me, is abundant cause for the many deaths that occur during the first few days after birth. This we pass off in a general way as "internal injury." True, but should we be satisfied with that? I think I may state without fear of successful contradiction that the far larger number of deaths occurring within the first few days are thus caused, and in support of this contention I merely ask you to call to your mind, in your experience, the number that have died after prolonged labor. Therefore, use the forceps here, other things being equal. This brings me to the only other indication I shall mention.

3rd. Mother's Suffering. Some, yea many, perhaps a large majority, will take issue with me on this proposition. Indeed, only a few years ago I not only did, but went on record. Perhaps I should be loath to let this stand unmodified, and in this manner that the indication should obtain only in experienced hands.

In an article written bearing upon this subject and read before the last meeting of this Society that met at Durham, N. C., I said, "I am free to say that when labor is natural and no danger is threatened or anticipated one would not be justified in applying the forceps. Quoting Sajou's Annual and Analytical Cyclopedia of Practical Medicine as claiming that the forceps should never be used unless there were positive indications for its employment." I contended that suffering was not a positive indication. Of course admitting that suffering should not be permitted to continue to the detriment of my patient; Now I hold that suffering should be considered as an indication and with a thoroughly dilated os, the head well down on the perineum or wedged under the pubic arch with a possibility of an hour or hours suffering, the woman should be relieved. My attention was called to an article a few months ago in which the author claimed to wait two hours after the os was thoroughly dilated, then invariably took the child. It is not at all necessary, indeed, it is not best to assist the head entirely clear of the mother, but to exert traction gently and firmly, *always within the line of the pelvic axis at the point of operation*, until the head is loosened and one or two pains, after the withdrawal of the forceps, will give birth to the child. By removing the forceps you lessen the risk of lacerating the perineum. It is not best, likewise, to put the mother too fully under the anaesthetic, as in so doing you may have to wait too long for the renewal of pains, and in case you have delivered the head the danger of asphyxia is eminent.

Tuberculosis of the Hip Joint.*

By E. C. McEachern, M. D., Cordova, N. C.

This occurs mostly in children, but may arise in adults, and occasionally in those of advanced years; 6 per cent. of cases arise in children under ten years; 8 per cent. of cases occur before the twentieth year.

The primary lesion may be in the synovial membrane, but is more often in the bone. It may begin in either the femur or acetabulum. If it begins in the femur it usually arises on the distal side of the epiphyseal cartilage. When the synovial membrane becomes involved it spreads rapidly through the joint. Traumatism and cold are predisposing causes.

Diagnosis is easy in advanced cases, but difficult in incipient cases. It may be confounded with caries of spine in which an abscess has formed, with sarcroiliac disease, with infantile paralysis, with lordosis due to rickets, and with gluteal abscess. In caries of spine there is no altered position of the limb, and in sacroiliac disease movements of the hip joint are unlimited and cause no pain. In infantile paralysis there is no pain, but paralysis and a great and rapid waste of muscles. In lordosis from rickets there is no pain on movement.

In gluteal abscess the symptoms do not remit as in early hip joint disease, and pain is felt in back of hip and knee. Fluctuation also can be detected.

Symptoms —Some divide the disease into three stages; first, the stage of deposition and multiplication; second, the stage of caseation; others contend such division un-

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desirable from both a clinical and pathalogical point of view. Wilson says, "Tubercular bone and joint disease should be considered as the primary invasion and all other symptoms should be regarded as results and not a necessary part of the trouble."

The symptoms are slight and may be overlooked. They occur in the following order: Limited motion when child first arises in the morning, night terrors, a slight limp and some pain may occur in the hip on tapping the sole of the foot while patient is recumbent with leg extended. As the disease progresses the child limps, the adductor muscles are rigid, the hip is broadened and fluctuation may be detected. The thigh muscles atrophy and there is deformity with apparent lengthening or real shortening. The pelvis tilts forward, which is due to the pelvis moving the femur as if ankylosed. This disappears on flexing the limb.

The gluteal muscles begin to waste and pain in the knee is noted. Changes occur in the gluteal fold and there is heat and swelling. If a cure follows an advanced coxalgia ankylosis occurs. Death may be due to septicaemia, tuberculosis of viscera, exhaustion of liver and kidney.

Prognosis: If disease is seen early the chances of cure are excellent in children. The longer the duration and older the patient the more unfavorable the prognosis.

Hip joint disease may recur years after an apparent cure.

Treatment: The incipient stage demands rest, sunlight, fresh air and good food. Direct exposure to rays of sun is beneficial. Tent life in open pine forest can be successfully employed in summer. The concentration of the sun's rays by lenses as suggested by Butler, Finsen and others, is of great benefit. The Roentgen rays have an inhibitory power on tubercle bacilli also. In cases where abscesses are present they should be evacuated immediately. If the head of the bone is separated from the neck it should be removed. The acetabulum, if diseased, should be thoroughly curetted and washed out with some antiseptic solution. The joint should be filled with an emulsion of glycerine and iodoform 10 per cent.

The patient should then be put to bed on a hard mattress with extension in the line of deformity and traction above knee; in children under ten years of age amounting to three to five pounds. In children ten to twenty years of age use a weight of from five to eight pounds. Always use a cradle to hold up the bed-clothes from the limb.

Day by day the limb should be lowered until deformity is overcome. If symptoms recur the weight is re-applied. If they do not, apply a traction splint, put a high-heeled shoe on the sound limb and send the patient out on crutches. The Thomas splint may be used or Wyeths apparatus, which is a favorite with American surgeons. If the limb is in good position by weight extension, plaster of Paris is a useful dressing. It is put on from the toes up and includes the entire extremity, and also the pelvis.

"No case of hip joint disease," says Phelps, "need recover with angular deformity," and to attain this end steps should be taken at the beginning of treatment to place the limbs exactly parallel. In lordosis from thigh flexion raise the limb until the iliac spine is straight. If the spine is depressed on the affected side abduct the limb. If the spine is elevated abduct the limb until the spines are horizontal. Extension will remove flexion in two weeks in a recent case, and in course of some months in an older case. Abduction demands no special treatment. In a movable case it will disappear, and in an ankylosed joint it is an advantage, compensating by apparent lengthening for shortening due to bone absorption or to stunted growth of the limb. Adduction requires an addition of several pounds to the extension weight, the use of the long splint on the sound limb, and the drawing up of the sound limb by a rope and pulley towards the head of the bed.

In old cases where the weight will not bring about the extension anesthetize the patient, gently straighten the limb a little and re-apply the weight. Extension in a mild case should be continued for three months after symptoms have disappeared, and in a severe case the period must be at least six months. In cases where abscess appears externally a free incision should be made and cavity curetted and closed up. Unless all the diseased tissue can be removed there is no need of curetting. Puncture, wash out and drain.

If it is found on cutting down to a joint that it is extensively diseased excision may be necessary. After excision or after the abscess has been thoroughly curetted the joint should be injected with pure carbolic acid, which is allowed to remain two or three minutes, after which the acid is washed out with pure alcohol.

A drainage tube as large as the wound will take is inserted into bottom of wound and packing is done through it. It holds soft parts away from bone and allows it to granulate up until the tube is pushed out, when a smaller one can be used. Abscesses pointing in Scarpa's triangle should never be opened at that point. An incision should be made along the femur, just below the great trochanter. This gives surgeons better opportunity for digital exploration and there is better drainage on account of child lying

on its back twelve out of twenty-four hours.

Excision is to be performed when the head of femur is detached; when profuse suppuration continues for a long time and when amyloid disease begins. When excision fails to check the disease and when patient has not recuperative power to stand the long siege following excision Mash says, "Amputate." This has become a successful procedure.

A Difficult Craniotomy.*

By Dr. L. C. Keerans, Charlotte, N. C.

In reporting the following case it is not my intention to enter into a recital of the various steps in the technique of the operation of craniotomy, but to present it as briefly as possible, its several complications, and the adverse circumstances under which delivery was accomplished.

The patient was a multipara, who two years previously had been delivered, after considerable difficulty, of a premature child. At that time she had been warned that another pregnancy would be attended by a repetition of operative procedures more severe than the first, if not by fatal result, as her pelvic deformity was so marked as to render delivery by ordinary means, such as forceps, impracticable. That the injunction was not heeded is only too obvious.

Labor began early in the afternoon of November 21st, 1905, and progressed until full dilatation of the os was completed. A vertex presentation was diagnosed, although the head had not become engaged. About two o'clock the next morning, after recognizing the obstacle to normal delivery, the attending physicians applied forceps.

Their efforts were rewarded by the slipping of the blades, which were repeatedly re-adjusted and traction again made to meet with the same result, the descent of the head and the engagement not having been influenced in the least.

Having apparently exhausted their resources, as well as themselves, in their many unsuccessful attempts to terminate the labor, I was called in consultation.

When the call came I was out and did not reach the house until 10 o'clock. Upon vaginal examination I found the pelvis contracted anteroposteriorly, the conjugata vera measuring 7.4 c.m. (or about 3 inches); also, in addition to this, was an exaggerated sacral promontory, on the right lateral aspect of which was what seemed to be a slight projection, the exact nature of which I was unable to determine, probably an exostosis.

During the night fetal life had become extinct. I applied the Neale's axis traction forceps, but on making traction they promptly slipped off, the head not presenting the proper diameter for application and retention of the blades. Had I secured this, as I afterwards found, I could not have accomplished a delivery, so after a second unsuccessful trial I abandoned the procedure.

As ergot had been given previous to my arrival I found the uterus tetanic, and to have accomplished delivery by version would have been an utter impossibility; any attempt to turn the fetus under such conditions would have been accompanied by immediate danger of rupture of the uterus, the lower segment of which had become appreciably thinned. If version had have been successful, the after coming head would have required crushing or craniotomy, or both, which would have been somewhat difficult, and comparatively undesirable to craniotomy in a vertex presentation. Obviously, the conditions under which the operation was undertaken and delivery effected, i.e., pelvic contraction, progressing maternal exhaustion, and a dead fetus, rendered craniotomy not only justifiable, but imperative.

In perforating I used the Smellie scissors, entering the points just anterior to the posterior fontanelle. When securing a sufficient opening I removed the brain and applied the ordinary forceps to compress the head, but the disproportion between it and the pelvis was so great that efforts at extraction by this method proved futile. As I did not have craniotomy forceps I used my fingers to break up both parietal and part of the occipital bone piece-meal, at the same time protecting the maternal parts from contact with fragments of bones.

To prevent laceration of the vagina during descent I bent back the frontal bone over the sharp projecting edges of the base of the skull. I then inserted a blunt hook under the mental symphsis, and with the assistance of supra-pubic pressure, made traction, bringing the remains of the head just to the vaginal orifice, when another obstacle was encountered, and on examination I found that the shoulders had not entered the superior straight. I then made an effort to pull them down into the pelvis with a blunt hook under the shoulders, but without avail. The remains of the head were removed in the vagina, and the shoulders pushed back from the pelvic brim, and then turned the fetus and thus effected delivery.

Just before delivery the patient showed signs of collapse, but after necessary stimulation rallied sufficiently to permit a continuance of the operation. The uterus was douched with 1-6000 solution bichloride of

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mercury. Ergotole 20 minums was given hypodermically.

The amount of hemorrhage, both ante- and post-partum, was comparatively small. The patient emerged from the anaesthesia in fair condition, her cheeks maintaining their former rosy color. A few days later I was informed by her attending physician that she died twelve hours after the operation; however, not before all efforts to revive her had been exhausted. It is probable that while her death may have been partly due to shock, it was more directly the result of the prolonged anaesthesia, the patient having been more or less under chloroform for about four and one-half hours previous to my arrival, and then for three hours required for the operation.

In making a few comments regarding such cases it is not my purpose to refer to the different forms of contracted pelvis, nor to the special indications for operations, but rather to urge the necessity of examination, previous to labor, of all pelves, especially primiparous. Where pelvic deformity is either suggested or apparent, as in Rachitis, Scoliosis, Lordosis, Kyphosis, etc., it is to be presumed that special attention would at once be directed.

No conscientious obstetrician fails to make a thorough urinary analysis in every case of pregnancy under his care, so that in the event of the discovery of albumen or casts, or both, he may institute proper prophylactic measures to avert the occurrence of eclampsia. It is one of his first duties to the mother as well as to the unborn child, failure in the performance of which renders him guilty of culpable neglect.

While eclampsia is not so frequently associated with contracted pelvis, still his obligations demand careful observation, and pelvic examinations, and the obstetrician or general practitioner has not discharged his preliminary responsibilities until such have been accomplished. In the case of a multipara who has given birth to one full-term child, either normally or with forceps, such preliminary pelvimetry would be unnecessary. It is, however, to primaparae generally, whether physical deformity be evident or not, that the above precaution applies.

The case just cited is one in point, in that external appearances indicated a normal pelvis. This is especially true in symmetrically or generally contracted pelves. With reference to the time at which such examination should be made (I refer now especially to those cases where there is no indication of deformity), it would be well to note that the uterus ascends in the abdominal cavity until about the thirty-eighth week (the second week before the completion of the pregnancy), at which time it begins to descend and sink into the pelvis, thus undergoing what is commonly termed "lightening."

Simultaneously with this process, the fetal head, in vertex presentations, assumes certain relations to the pelvis; thus in case of a multipara, by reason of the relaxed abdominal wall, the fetal axis is not coincident with, but forms an angle with the axis of the superior straight, which position is maintained until labor occurs, hence there is no engagement until that time; however, on the other hand, in the primipara when the uterus descends, the abdominal walls being very tense, operate to place the fetal axis in coincidence with the axis of the superior straight, thus, under normal conditions, causing the head to enter and gradually become engaged in the pelvis.

If such engagement fails to take place in the primaparous it might be attributable to such cases as (1) abnormality of the fetus, e.g., monstrosity, hydrocephalus (2) hydramnion (3) contracted pelvis, etc. Vaginal examination in a multipara is not necessarily called for, but in primipara, when this is omitted, should you on palpation at the time just indicated find non-engagement of the head, or again, when digital examination of the vagina, uterus, etc., in the early months has enabled you to detect pelvic contraction, it becomes imperative to adopt such measures as will enable you to estimate the dimensions externally, the conjugate diameters, the importance of exostosis, etc., as constituting further obstacles to delivery.

Thus only can intelligent treatment be instituted to meet the conditions of any particular case. Again, if on palpation you should diagnose a presentation of the breech, lateral plane, etc., the same precautions should be observed.

Regarding operative interference, it must vary according to the nature of contraction, briefly in a pelvis flattened antero-posteriorly with a true conjugate of 8.1 to 9 c.m. (3¼ to 3½ inches) and a fetal head of ordinary dimensions, delivery can be accomplished by forceps or probably by version; or again, where the true conjugate measures 6.5 to 7.5 c.m. (2.5 to 3 inches) it is a pelvis through which the average head will not pass, and therefore, should the child be living, symphysiotomy is indicated or, in the event of its death, craniotomy,

In those forms of contracted pelvis where the true conjugate is less than 6.5 c.m. (2½ inches), either with or without osseous encroachment, or again where the true conjugate is sufficient for passage of the head under the symphysis and yet complicated

by an exostosis, or further, when the pelvis is so distorted as to render symphysiotomy inelligible, Caesarian section is demanded.

I have purposely omitted mention of the induction of premature labor in the treatment of these cases, as it is to a great extent being superseded by symphysiotomy. As to the advantages of either operation, without going into a comparative analysis, I would refer you to the statistics, which show as the results of the induction of premature labor, a fetal mortality of a little more than 60 per cent., which of course includes those deaths occurring during delivery and those occurring afterward, due to prematurity. On the other hand, symphysiotomy holds out a much greater chance to the child, as under the operation the fetal mortality is very small, ranging from 5 to 10 per cent., which estimate is based on the results of operations performed both in this country and Europe. Regarding maternal mortality, the results are about equal, the percentage being comparatively small under either. Hence, as the operation is done largely, if not entirely, in the interest of the child, symphysiotomy will undoubtedly take precedence over the induction of premature labor.

In conclusion, while craniotomy on the dead fetus is repulsive, it is not only more so on the living, but rarely ever justifiable, even though the case is seen in an emergency, and for the first time, unless the conditions are such that the mothers life depends on the sacrifice of the fetus.

Therefore, on the whole, if pelvic examination be made at the proper time, we can, by the exercise of such means as are at our command, avert many unhappy consequences and secure a successful termination in the salvation of both the mother and child, a thing which is plainly our duty.

Where The Tides Meet.*

By H. S. Lott, M. D., Winston-Salem, N. C.

We live in the age of advanced knowledge along all lines of our profession. These lines are chiefly, two,—Medical and Surgical. Running as they do, so closely parallell, they should never be strongly at variance, and, converging harmoniously, their blend attains the nearest approach to perfection which is attainable in the practice of our science.

Today, we recognize actual conditions, stripped of mystery, and, in a very large number of cases, stripped of uncertainty as well: and we have learned to apply actual remedies, both medical and surgical, for the relief of symptoms and to avert disaster.

Every practitioner of medicine is possessed of some surgical wisdom. It is this wisdom which guides the patient safely through the days of doubt; days in which the symptoms tell us nothing to a certainty, but keep us ever on the watch for one of many possible conditions; and help us finally, by exclusion, as a rule, to recognize either a general systemic infection, or a primary and tangible point for attack.

As our knowledge grows, and with it our diagnostic skill and conception of future possibilities, we recognize a time and a place for surgical intervention in many conditions known to have been confined to the realm of medicine. Notable, among such conditions, are appendicitis, (the classical perityphilitis of Gross) gall stones, gastric ulcer, typhoid fever, cervical tears, no longer treated with swab and cautery, ectopic gestation, with rupture, which is never recognized at all, and the woman dies under some ominous title ascribed by ignorance: and many others, including every region of anafomy, and every branch of surgery.

By the lights of today we recognize in these, the *focus* of pain, the *focus* of infection, and the *focus* of possible disaster, such as rupture, perforation, or malignant growth. Such foci needing, not always, perhaps, the surgeon's knife, but always surely, the surgical wisdom, and the surgical conscience to best conserve the vitality of the patient, and guide to the safest issue.

The "time to operate" for appendicitis is when the patient has it. Therefore, the want is for greater skill in early and accurate diagnosis; and more earnest conviction as to the best mode of treatment. The waiting plan, with its placebos and plasters, has cost our country more valuable lives, and given us more cripples, than the recent wars, or an epidemic of small pox.

In the hands of its originator, and advocate, who knows just when and how to wait, it may be comparatively safe; but as teaching to the world, and the masses of practitioners, it bears much danger to the patient.

Typhoid fever, the clinical picture of which is familiar to us all, is becoming each year more distinctly a surgical condition. During the days of onset, which are also the days of uncertainty, treatment is mostly tentative, and our attitude is one of watchfulness; but with the diagnosis once established, we picture the surgical condition that confronts us, and also realize the delicate structures with which we have to deal. A bowel at many points studded with inflamed glands, these glands embedded in the bowel wall, and each one pursuing the three separate stages of congestion, necrosis, and ulceration; which process may be accomplished either with or without suf-

*Read before the North Carolina Medical Society at Charlotte.

ficient sloughing of tissue to cause a perforation of the gut, or the opening of a blood vessel.

Now, this condition once established and recognized, our surgical conscience tells us that the more quiet this bowel is kept, and the less it is disturbed by the irritant contact of foreign bodies passing through its lumen, until these weakened points have regained their normal tone, the less danger there is of fatal accident from perforation or hemorrhage.

Equally as many, if not more fatalities in typhoid fever, occur from one or the other of these surgical accidents, as from auto-intoxication; and the treatment, so commonly in vogue, of giving hard pills and capsules, and of disturbing by purgatives a bowel which should be kept quiet, and emptied, if need be, from below, by a simple saline enema, is largely to blame for the fact.

Treatment, therefore, in typhoid fever, the diagnosis once established, may be simplified into that of the after care of patients who have had abdominal sections; and especially of those in which bowel lesions previously existed, or when the bowel wall is opened by the surgeon, as in the removal of the appendix, to remove some existing condition. This means physical rest for the patient—complete,—with the avoidance of all foods or medicines taken into the stomach that will form lumps to be passed through the bowel, or awaken peristalsis.

Accidents occurring, such as perforation or haemorrhage, demand especial consideration. From the former many patients are rescued by operation, with repair of the lesion, and irrigation of the abdominal cavity: and, when haemorrhage occurs, seemingly without perforation, the "opium splint," with an ice bag, and restriction of food and stimulants to the minimum essential to life, for a while, gives the sloughing ulcer, with its bleeding vessel, the best conditions under which to be restored to normal tone and tissue.

Abortion is a surgical accident. Confronting us almost daily it is of prime importance, because of its danger to the patient. The chief dangers from this accident are two, haemorrhage and sepsis; both of which are best avoided by surgical means. In the beginning, when it is only a threat, and there is still a chance of tiding the patient over, complete physical rest, and full doses of opium, to check muscular spasm, allay physical pain, and also relieve mental anxiety, promise best for the accomplishment of our end; but when the flow is once established, showing that the placental attachment has been freed, and that the abortion is inevitable, the sooner the uterus is emptied the better it is for the patient.

An empty uterus does not bleed, and a clean uterus is not so likely to become a source of septic infection. Now, in a large number of cases the uterus will empty itself within twenty-four or forty-eight hours, and sometimes during this process an aseptic packing of the vagina will lessen the loss of blood, and favor the expulsion of the product of conception; after which a full purgative and an occasional irrigation of the vagina with normal saline solution, if it can be properly given, will bring the accident to a very happy termination. But there are cases in which the natural forces are not so prompt and thorough in their work; the foetus may be expelled, and perhaps a part of the placenta, but there is something left behind, and we have at once, and beyond a doubt, the three foci in one, (viz., of pain, of infection, and of possible disaster, through haemorrhage), which should awaken the surgical instinct in us all.

To let a woman lie and rot from sepsis may seem to those who do not know better a very conservative measure; but to me, in looking back and reviewing their long and tedious convalescence, with perhaps but a partial restoration to health after all, it seems also a very cowardly one. Therefore, after twenty-four hours if the uterus has not been emptied nature should have some help in the matter. This may be safely given in many cases without an anaesthetic, using a dull curette, and, starting at a given point, going carefully over the entire intra-uterine surface, and removing all detachable portions of placental tissue; this to be done, of course, with every aseptic precaution, both of toilet and of technique; and followed at once by an irrigation of the uterine cavity with a gallon of normal saline solution, as hot as it can be borne, and a full purgative on the following day. Waiting longer than twenty-four hours offers two sources of renewed danger. First, from continued haemorrhage and primary infection of retained placental tissue, and our aim should be to remove this tissue before such infection has occurred. And, second, supposing the contents of the uterine cavity to have become septic, each hour of further delay, which favors the softening from infiltration of the uterine walls, increases the danger to their structure in its removal.

The conditions cited are such as confront us daily, but the list may be lengthened indefinitely; and the better able we become to bring our cases from out the shades of obscurity and doubt, and recognize the actual state of affairs, the longer it will be.

Many cases, for instance, of tubercular

peritonitis are treated throughout weary weeks under the ominous title of "fever," whereas, by a timely recognition of the real trouble, the patient might be spared much useless medication, and also offered the hope of checking the tubercular process by opening the abdomen and washing out its cavity with normal saline solution. Just how this helps the matter we do not know; both trauma and exposure, no doubt, play their part; but that the condition, with its distressing symptoms, is bettered is beyond a doubt, and the patient is much more comfortable afterwards.

To my mind, surgery means much more than the surgeon's knife; and, to have attained perfection, or even its nearest approach, the surgeon must be possessed not only of the mechanical skill, but also of the wisdom and the conscience, which are equally essential to the successful and life-saving practice of his art.

There are times when it is a much harder task to advise against an operation than it would be to urge it. But all men do not see things just alike; if they did there would be little need for consultations at all; and when the inner consciousness tells us that the patient will live just as long, maybe longer, and be just as comfortable without this trying ordeal, the duty becomes a very plain one, and in its performance we not only best serve the interests of our patient, but also sustain the honor and dignity of our profession.

For instance, operations that exchange normal for abnormal positions of important organs. Innocent fibroids, with no pressure symptoms; when the risk of the operation is greater to the patient than the risk of retaining the growth. Cancerous uteri, which have gone beyond the life line, cases of tender ovaries, in young women, where the appendix is removed for a cure. Dilatation of the cervix in virgins, for the relief of menstrual pain; whereas, the menstrual wave and the menstrual pain, like all of the functions of woman's pro-creative organs, are accomplished in cycles. Just what *governs* the wave, we do not know; and just what *causes* the pain, we do not know; but the very frequent failure of the dilatation of the cervix to relieve the symptom shows us that the real focus is not here. And many others might be cited, which are swept into the current, in the present day perfection of toilet and technique, with its comparative safety; and the promise it gives of rapid advancement along most attractive lines.

The exploratory incision is one of the greatest evils of improved technique; and also the greatest menace to refinement of surgical wisdom. "We'll just make a hole and peep in," by which resolution the faculties are blunted, and the essential and life-saving diagnostic skill is never attained. "Make your diagnosis, and then cut!" should be the motto of all surgeons.

Therefore, just where the tides meet in medicine and surgery will always be a problem, largely for individual solution. Each case is a law unto itself. But the man who makes best the diagnosis, clearly and correctly, recognizing a prime cause, with its localized focus for attack, will also be best able to foresee accident, and to guide his patient with safety.

134 South Cherry street.

Are We Doing Our Duty in Trying to Prevent the Spread of Venereal Disease? †

By Dr. J. H. Marsh, Fayetteville, N. C.

Mr. President, and Gentlemen of the North Carolina Medical Society:

With the discovery of vaccination by Edward Jenner, small pox was robbed of its terrors, and the human race was the recipient of the blessings of the first great victory of preventive medicine. Later, Pasteur, through long years of toil and scientific research, finally established the preventive treatment of hydrophobia on a firm basis, and a disease with a mortality of one hundred percent has been reduced to less than two percent, if the treatment is administered at the proper time. And another of the arch enemies of mankind has been robbed of its power to destroy.

Diphtheria, which had a mortality of from seventy-five to eighty percent under the best of treatment, has been reduced to from ten to fifteen percent, under the proper use of antitoxin, and another of the enemies of our race has been robbed of its power to destroy to a very great extent.

With the same object in view, but along different lines of investigation, Walter Reed and his associates discovered that certain mosquitoes were the carriers of the yellow fever germ, and in their effort to prove their theory and establish on a scientific basis their discovery, the lives of some of the noblest men in our profession were sacrificed that humanity might be relieved of one of its most deadly enemies of disease, and with that discovery and the proper sanitary regulations, we all know how Cuba and our Southern country has been freed practically from one of the most fatal plagues that they were heir to.

Likewise the plasmodia of malaria was also demonstrated and for the first time this disease was attacked on its own soil, and will, no doubt in the near future be robbed of many of its terrors.

† Read before the North Carolina State Medical Society at Charlotte, N. C.

Along different lines investigators are actively at work the world over in the effort of trying to find out the germs that produced the different diseases and the antidote or prevention of these diseases, and no doubt the near future has rich rewards for us in our efforts to relieve and prevent suffering.

When the discovery of antiseptics was made known to the profession by Sir Joseph Lister, surgery entered upon a new era, and bacteriology and pathology began to receive the attention which they deserve. The germs of the different diseases were isolated and surgery became a science as well as an art, and this most important branch of our science to-day has advanced to the point that our laboratory is our most important guide and the question is no longer asked what we do think, but what do we find to be the diseased condition.

With the many advances among all lines of medicine and surgery, it seems that we have been slow to attempt to try to prevent the spread of the veneral diseases. Is it not time that we take up this class of diseases and in some way try to prevent the promiscuous spread of a class of diseases which, in all probability causes more suffering and misery and saps the human family of more vitality than all of the other diseases combined?

It is stated on good authority that one-half of the blindness of the country has been caused from infection. In a recent issue of the Journal of the American Medical Association, Dr. J. Parks Lewis, of Buffalo, says: "The Ophthalmia of infancy is an infectious germ disease," and advises the instillation of a solution of silver salt into the eyes of the new born. and in that way prevent one-fourth of the blindness in the United States. Would it not be far better to prevent the cause of that blindness? A prominent physician who attends the students of one of our large universities said a few years ago that the first prescription he wrote at the beginning of the college year and the last one he wrote at the end of the year were for veneral diseases. How often have we treated unfortunate young men, who had contracted the disease, in a careless way and never explained the dangers and far reaching consequences of not being properly treated, not only to themselves, but to the innocent wives they will one day marry. How often have we been called upon to treat those innocent victims for those same diseases, and how many pustubes, ovaries and uteri have we removed as a consequence of these unfortunate unions. We have attended abortions, delivered still-born infants, treated infants born with infection and often followed them to death. And, after exhausting all of our skill in medicine and surgery, seen the patients finally devoured by the poison.

Gentlemen, there is no use for me to try to describe the horrors of such a life. We all have seen the ravages of this monster enemy in all its forms,—too often for our own peace of conscience. Should we hesitate in taking up this subject on account of its delicate nature, which we all admit, and let our patients go on in ignorance till it is too late, and finally end a miserable life, conscious of the sin which we have allowed them to ignorantly commit? Has the time not arrived when we must act? Millions of dollars are spent each year on patent medicines, the only claim for which is that they cure veneral diseases. A friend of mine told me some days ago that he saw in the show window of one of the principal drug stores at Hot Springs a half dozen buckets of mercurial ointment and potassium iodide crystals labelled "Society Salve,"—"The Mud that Made Hot Springs Famous." I only desire to call attention to a few points on this subject, with the hope that every member of the profession will awake to the importance of educating his unfortunate patients in this matter, and that a campaign will in the near future be waged against the habitues of the pest houses of these diseases throughout our land, and we will not sit idly down and allow our legislators in Congress to enact laws to expose the frauds of the patent medicine men who are reaping a harvest at the expense of the unfortunate victims, but rush to our duty and demonstrate to the world that when duty calls the entire profession is on the alert and not one drone is to be found who is willing to benefit by the labor and sacrifice of another in this great work, but each member is willing and ready to subordinate his personality and make any sacrifice for the bettering of the conditions of the whole people.

The Physician and His Relation to Tuberculosis as a Social Problem.*

By Dr. T. A. Mann, Durham, N. C.

I shall not attempt to give any new ideas regarding the physician's relation to this most important problem which rests for its solution on the co-operation of the public, the profession and the health authorities. I shall speak for the most part of the physician's relation to this problem, with a strict understanding that without the work of the layman in adapting himself to the plans and principles laid down by the medical profession, the physician's work will be much hampered. Dr. Anders, of Philadel-

*Read before the North Carolina Medical Society at Charlotte, N. C.

phia, in speaking along this line says that "although the anti-tuberculosis fight began on a medical basis, naturally, victory will be a very doubtful and at the best very remote result without the larger work of the laymen. This is truly a fundamental principle of the strategy indeed, and there must be adaption on the part of the general public as well as medical profession to a rational knowledge of and habitual attention to the means of prevention and limitation." "Physicians," he says, "have drawn and laid down the plans and specifications for the bridge that is to carry the populace safely over the dark gulley of disease, despair and death, but the building must be done and the bridge used in the main by those who would be saved thereby."

In working out a solution to this problem, however, the physician has a sacred duty to perform. Dr. Osler well says that "in the warfare against tuberculosis the man behind the gun is the general practitioner; the battle cannot be won unless he takes an active, aggressive and accurate part." The time has not yet come when the physician is employed as prophylactiker. Let us hope that this time is not far in the future, for none can deny that it is better to save lives by the prevention of disease than by much drugging after its onset. Especially is this so in tuberculosis, for success in combatting it depends wholly on preventive measures and the earliest possible diagnosis when it has set in.

Dr. S. A. Knoph, of New York, said that "The municipality which will inaugurate such true and practical philanthrophy as to assign a competent physician as family practitioner to a number of families not able to pay for one will be the ideal municipality of the future." I believe in having well organized health departments, both State and municipal, but when it comes to free medical advice in general sickness I must dissent. This touches on a social problem which, if not handled properly, will break up the very foundation of our Government. I will say in passing that the downfall of the Roman Empire was marked by free dinners and free corn for the poor. Dr. Knoph, who perhaps has done as much work in tuberculosis as any man in the country says, however, that after careful study he has found out that the tuberculosis problem will and never can be solved without the help of the general practitioner, and that consumption as a disease of the masses will never be successfully combatted until the day in which every family has its family physician. No matter how strict the sanitary regulations which boards of health may issue, no matter how many sanatoria and special hospitals for consumptive poor we may have, we must look to the family physician for the bulk of the work in fighting "the great white plague." It is to the physician that we must look for the discovery of the early curable cases. The stooping shoulders, the badly developed and deformed chest, the pale appearance, the slightly hacking cough (sometimes no cough), a marked irritability, a loss in weight, a lack of appetite, a glistening eye, pasty skin, the bright color of the cheeks, a frequent rise of temperature in the afternoon, a dislike to pleasure and to duties which were formerly easy to perform, should put the family physician on his guard and indicate that the individual having these attributes, signs and symptoms is a subject for a most careful examination."

The medical profession in North Carolina is altogether too slow in taking up this work against tuberculosis. Physicians are either not aware of their duty and responsibilities or they are almost inexcusably careless. Until a specific antitoxin is found it is plain that we must fight an invisible foe by fumigation and such measures as have proven valuable. That we have been careless is shown by the fact that from one-fifth to one-tenth of the deaths are due to this trouble. In some countries of Europe it is said that one-third of the working classes between fifteen and sixty die of consumption. Think of what a fearful loss to society this is. Dr. Langston has tabulated the figures regarding a hundred and seventy-seven wage-earning males who died in Maryland in 1903. The data for these figures were acquired without regard to the social standing of the individual, hence it may be assumed that they fairly represent the average condition. The average individual loss was $741.64. The average potential loss to the community of a wage-earner was $8512. You can readily see the great annual loss society sustains. Besides this loss in dollars and cents think what hardships are brought to bear on families and indirectly on communities. All of us have seen whole families brought to poverty by the loss of the father in the prime of life. Children have been sent to the factories to earn food for the widowed mother and her nursing babe. Young pupils have been taken from the school-room and caused to grow up in ignorance in order to keep the wolf from the door. All of these things have a tendency to lower the standard of education and morals of our country.

One of the first duties of a physician in his relation to tuberculosis is co-operation with the public and with health boards—active and aggressive co-operation. In the past physicians have been too apathetic. Some one has said that "by far the most

dangerous foe we have to fight is apathy, indifference, from whatever cause, not from a lack of knowledge, but from a carelessness, from absorption in other pursuits, from a contempt born of self-satisfaction. Fully 25 per cent. of the deaths in a community are due to this accursed apathy, fostering a human insufficiency, and which goes far to counterbalance the extraordinary achievements of the past century. Why should we take pride in the wonderful railway system which enterprise and energy have traversed the land when the supreme law, the public health, is neglected; what comfort in the thought of a people enjoying great material prosperity when we know that the primary element of life is denied them? What consolation does the little red school-house afford when we know that a Lethean apathy allows toll to be taken of every class, from the little tots to the youths and maidens?"

The various health boards should add tuberculosis to the list of reportable diseases and physicians should do all in their power to report promptly. Instead of making false diagnoses they should endeavor to clear up doubtful ones. Another duty of the physician is care in examination of his patient. Many have been treated and are now being treated by reputable physicians for indigestion and general debility when the real trouble is tuberculosis. No wonder many people try patent medicines and the druggist when if they consult their physician he asks them a question or two and then prescribes a tonic. Tonics in tuberculosis do very little good unless accompanied by advice as to the proper mode of living. The lack of drugs did not cause the disease and a supply of drugs cannot remove the cause. The physician, too, should be able to detect slight changes in the lungs. If not able to do so he should consult some other physician to help him. If a person objects to consultation the physician should explain the necessity of an early diagnosis, and that the expenditure of a few dollars for good medical advice at a time when the possibility of recovery is good may mean the saving not only of many dollars in the future but possibly happiness and an unbroken family. When a diagnosis is made a full and truthful statement should be made to the patient. The day of keeping a consumptive ignorant of his trouble has passed. It is contrary to all scientific teaching. How can a person protect himself or his family if he goes on from day to day spreading his germs broadcast? Successful treatment depends on a knowledge of the specific source of the disease. No physician is justified in allowing his patient to go to a slow but certain death when a free and an honest confession may give him a chance for recovery and will give him an opportunity for preventing the spread of the disease to others in his family.

In relation to tuberculosis the physician must be a teacher, a hygienist, and prophylactiker. He must teach the family of a tubercular home the nature of "the great white plague," and tell them of its dangers. He should allay false fears. He should teach them the laws of hygiene and be on the alert to detect carelessness in carrying out instructions. He should not only be a physician but a friend to his unfortunate patient, and hold himself in such relation that he can freely give advice regarding the use of patent medicines and cures. This may be due to the fact that the physician condemns them without explanation.

Finally, brethren, let us all think seriously over this subject and take into consideration its true character. Remember that now and then epidemics of smallpox, scarlet fever, and diphtheria are as nothing compared to this grim monster which is always creeping into our homes and slowly sapping the life from our fairest flowers.

An Unusual Case of Ectopic Gestation.†

By Charles Z. Candler, M. D., Dillsboro, N. C.

My object in reporting this case is not so much to add anything new to the subject of ectopic pregnancy, but more on account of its comparative infrequency. In looking up the literature on the subject I have been unable to find anything that applies to the rupture of the sack into the bowel and escape of its contents by that route. I shall enter into the symptomatology of the condition only in so far as it applies to this particular case, as it is taken for granted that every one who does any amount of obstetrical work is familiar with all the manifestations of such a condition.

Mrs. B., age 45 years, mother of eleven children, all living, the youngest of which is four years of age. Nothing in past history of any importance except a miscarriage nine years ago. For past two years menses have been fairly regular and accompanied with slight pain at times. Two months prior to present illness the menses suddenly ceased, and, as she expressed it, thought she had been "caught up." Having occasion to leave home for a distance of about ten miles, she took advantage of a wagon in which to make the trip. The road being very rough and rocky she was considerably shaken up, and on returning home in the evening she complained of slight pain in lower abdomen, but thought nothing of it as she was accustomed to such attacks.

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†Read before the recent meeting of the North Carolina Medical Society at Charlotte, N. C.

During the night she became unwell, and by the following morning was suffering intensely, the pain becoming of a spasmodic character. She grew steadily worse and I saw her in the afternoon of the same day. At this time she was in extreme pain, which radiated over entire abdominal surface, frequent vomiting, which was not preceded by nausea (projectile type) pulse 120, temperature 97, and marked depression. In fact, the picture was that of extreme shock.

On bimanual examination of the pelvic organs there was found a profuse bloody discharge which contained considerable shreds and pieces of membrane (decidua), resembling more than anything to which I can compare it the lining of an egg shell. The uterus was found to be enlarged and very sensitive. High up to the left and behind the cervix, which was widely dilated, could be outlined a distinct, pulsating mass about the size of an ordinary cocoanut. As a result of the extreme sensitiveness of all the pelvic organs the tubes and ovaries could not be found.

I made a diagnosis of ectopic pregnancy with rupture of the sack into the peritoneal cavity and advised an immediate laparotomy. My friend, Doctor Colby, was called in consultation who concurred in my opinion and we immediately began to make preparations to open the abdomen, but on account of the extreme shock she was in at the time we decided to postpone the operation until the following morning, it then being very late in the evening. But our main object in waiting was the hope that she might rally from the shock, thereby better enabling her to go through the operation more successfully. Accordingly we administered gr. ¼ morphia and gr. 1-00 atrophia hypodermically which gave her some relief from the great pain. This was followed by the administration of strychnine, 1-30 gr. every three hours. She rested and was fairly comfortable for two or three hours when the pain returned with all its severity. She was again given the opiate, but with very little result. About four o'clock in the morning the pains became more violent and cramp-like in character, the interval between them being so short that they appeared to be almost continuous. At this time she acted more like a woman in the last efforts to expel the foetal head through the perineum. There was a sudden cessation of the bearing down pain as if she had succeeded in her task; at the same time there came a gush of liquid—not from the vagina —but from the bowel. What had happened God only knew, for we didn't. The amount of this liquid I am unable to estimate, for there must have been a considerable quantity lost in the mattress. A bedpan was placed under her, into which she passed about one pint of bloody looking liquid which resembled nothing other than amniotic fluid. Mixed with this were shreds of membrane and blood clots in abundance. In the course of an hour she again passed about the same quantity of fluid in which we found unmistakable portions of placenta, together with what we took to be the remains of a six-weeks' foetus.

During the week following she passed a small quantity of sanguineous fluid per rectum which gradually decreased until, at the end of ten days, it completely disappeared. From that date on her recovery was uninterrupted, and at the present writing she is enjoying excellent health.

The bibliography of ectopic gestation, to which I have access, is limited to standard works on gynecology, Encyclopedia of practice and the medical journals. In none of these, containing articles on this subject, am I able to find reported a case in which the rupture took place into the rectum. Such an early rupture, too, seems to be of rare occurrence. These, gentlemen, are my reasons for presenting a report on this case.

Notes on Puerperal Eclampsia.*

By Dr. W. C. Folger, Dobson, N. C.

It has been said that "familiarity breeds contempt," and while I am reasonably familiar with eclampsia I deny the contempt. In days gone by, when I was young in the business, I regarded eclampsia rather lightly, but larger experience has changed all this. I now regard it as one of the most formidable accidents to which the pregnant woman is liable.

There have been many definitions of eclampsia, all of which, with which I am familiar, are faulty, in that they fail to say that it is dependent upon pregnancy for its cause. I think a good definition would be: convulsions occurring before, during, or after labor and due to pregnancy.

We are told that eclampsia occurs once in about two hundred and fifty to three hundred cases of pregnancy, but I am satisfied this is far too small a percentage, as in my experience it has occurred in about one per cent. of all pregnancies.

As to the cause: Many writers have advanced many theories, all with more or less plausibility, and possibly, all with some truth in them. That the active cause is a poison circulating in the blood there can be little doubt. Whatever the specific poison may be the presence of the foetus in the body of the patient, and in active connection with her, is the cause of all the trouble.

* Read before the North Carolina State Medical Society, Charlotte, N. C.

This seems to be clearly proven by the fact that eclampsia never occurs till sometime after the formation of the placenta, and almost invariably ceases with the birth or death of the child.

For fear that I become tedious and weary your patience I will pass from theories, which are of little value to us, to the treatment. The treatment of eclampsia is twofold: that directed to the prevention and that directed against the attack. While I would not decry the preventive treatment, still, I think that directed against the attack is of more importance to the country practitioner for the reason that he is seldom called to the patient till she is in convulsions. I do not think it at all likely that you will make a mistake in diagnosis, certainly not if you see the patient have a convulsion. The first thing to do in the attack, if you happen to be young in the cause, is to go out and cool off, and while you are out think over the case and get your treatment outlined in your head. Then carry your treatment out and do not let the importunities of her husband or the suggestions of friends hurry you in the least. The treatment which I have found best is briefly stated: Veratrum, morphine, blood letting and purgatives.

These are named in the order of their employment: First, gtt. x of Norwood Tr. veratrum alternated with one-fourth of a grain morphine sulphate hypodermatically, followed by the taking of 16 to 24 oz. of blood from the arm. The veratrum and morphine are repeated in 20 to 30 minutes, and kept up at this interval till the pulse comes down to 60. When this has been accomplished you may feel reasonably safe, as it is extremely unlikely that your patient will have a convulsion with the pulse down to 60. If the pulse should go to 40 do not become alarmed, as it is only that much better for your patient. I have seen several with the pulse at 40 and they have all recovered.

At this stage, if it is possible without doing too much violence to the parts, the child should be delivered. But I do not think it ever justifiable, leastwise in country practice where asepsis is unreliable, to slit up the cervix in order to deliver. Keep the pulse down and wait, and while you wait give a large dose of salts. Usually in from four to eight hours labor will come on and the child will be born without any more convulsions.

Now in regard to preventive treatment: You will usually have abundance of time to look this up in your text-books. The line of treatment I follow is briefly: Calomel, epsom salts, citrate or acetate of potassium with digitalis, and the milk diet. I think all medication is secondary to the milk diet.

As illustrating all phases of eclampsia and its treatment, I wish to report this case.

Early on the morning of January 11, 1903, I was called to attend Mrs. P—in her first confinement at full term. The labor dragged slowly along and about noon she complained of headache and I gave her gr. xxxx chloral hydrate in two doses. About 2 o'clock she lay down and in a few moments exclaimed "I am falling" and immediately went into convulsions. I gave her a hypodermic of Norwood Tr. veratrum gtt. x and morphine sulphate ¼ gr., both of which were repeated in half hour. I also bled her 16 oz. Convulsions ceased after the second injection, pulse reduced to 40. Child delivered (dead) in about six hours. Mother made a good recovery.

In the fall of the same year she was found to be pregnant again, and upon the appearance of edema of the face and feet, with other symptoms of toxemia, she was placed upon the preventive treatment I have outlined above, and on 20th of January, 1904, I delivered her of a healthy child at full term. No convulsions and mother made a good recovery. April 24th, 1905, she being again pregnant, and edema of the face and feet coming on she was put upon the same treatment she had been before, which was kept up till August 30th, when I delivered her of an apparently healthy child at full term. Five hours later she went into convulsions, which were treated as before. Result: She died that night, having had no convulsions in several hours. Child died in convulsions in about ten days.

And now in closing this rather scattering article, those lines by Burns come vividly to mind:

"The best laid plans o' mice and men,
Gang aft aglee."

Personal Experiences in the Treatment of Pulmonary Tuberculosis.*

By Edwin Gladmon, M. D., Southern Pines, N. C.

The subject of pulmonary tuberculosis is the old one of seed and soil: the soil must be suitable or the seed will not grow. In my humble way I have preached for years the doctrine that instead of hunting for something to kill the seed we should endeavor to make the soil so sterile the seed cannot thrive.

In the human organism it is not possible safely to introduce any germicide that is the equal of healthy blood. It is nature's own germ killer. But normal blood is only possible where there is normal digestion, and

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as this latter falls below par, so in equal ratio does the blood loose its germicidal properties, and leaves the body an easy prey for infection. Faulty digestion throws intoxicating substances in the blood and it then has troubles of its own.

I believe tuberculosis to be a disease of malnutrition; that means non-assimilation, and that means further that the food is not suited to the stomach, or the stomach is not suited to the food. Or it may be both.

The food does not suit the stomach when it is improper in character, imperfectly prepared, impure or adulterated. Or it may be imperfectly masticated, or too hastily eaten. The stomach may not be in a condition to receive the food because of disorders of secretion, motor insufficiency, neuroses, or other pathological changes. The cause may possibly be found entirely outside of the stomach. Whatever the cause the final condition is the formation of noxious substances, which are absorbed and produce a condition which is broadly covered by the term "auto-intoxication."

The power of the blood as a germicide is therefore lowered in proportion as it is poisoned from within. It is like a warfare between nations where one has to fight a revolution at home.

What foods are suitable and what are not is too large a subject to be treated in the brief compass of this paper. But generally speaking I am opposed to any rigid, unvarying form of diet. The line of success is the line of least resistance, and that means a diet that accords as fully as possible with the patient's desires. The psychic element is an important one in digestion, and other things being equal more perfect digestion results from a diet pleasing to the patient than one forced on him by arbitrary rules. In the absence of diarrhoea a mixed diet meets this indication better than one confined strictly to nitrogenous foods. It is not what a patient eats but what he digests that gives results. Nor should the meals be given too often. Modern methods of forced feeding agree with some, but with the large majority of patients I believe it to be a positive injury. Increase in weight in forced feeding is not an absolute sign of improvement in all cases.

There are but few cases of tuberculosis in which the stomach does not need treatment. Lavage, electricity, and massage are my stand-bys. Lavage may be needed every day and it may be needed but once a month, but it is a duty we owe our patients to keep their stomachs as free from sliime, mucous and bile as possible, and to see that the gastric juice has always the requisite amount of hydrochloric acid with which to work.

Cleanliness of the intestinal tract is just as important as of the stomach and calls for colonic flushings and antiseptics. While the sulphocarbolates have no influence in tubercular diarrhoea, they are equal to any of the new synthetic compounds in controlling fermentation. Even in the last stages of phthisis the movements may be kept almost free from odor.

Lavage of the stomach I use in its broad sense and by it include the drinking of medicated waters.

I give one or two teaspoonfuls of listerine or borolyptol in water an hour before meals. This in many cases obviates the use of the stomach tube. I should observe that the statements in this paper have reference only to cases with fever: with at least a maximum of one degree. Just so long as this much fever persists just so long will the digestive tract need watching along the lines here stated.

The importance of cleanliness of the intestinal tract was especially noted in a patient now under treatment who last month had several attacks of urticaria, and each attack was accompanied with hemoptysis. The old fashioned remedy of sulphur, salts, cream of tartar with listerine finally stopped both the hives and spitting of blood.

Where flushings have to be supplemented by medicine, mercury combined with a sulphocarbolate is a favorite remedy with me. Minute doses of bismuth and ipecac add to its effectiveness.

When fermenting masses are to be removed it is best to avoid the use if possible of salines. While in time they clean the intestinal tract, by their liquifying action, they make absorption of the poisons more easy. But when such a medicine has to be given phosphate of soda in a saturated solution gives me the best results. These remedies are especially indicated when patients come with a malarial history. It is hardly necessary now to argue against the use of creosote and cod liver oil in tubercular cases with weak digestion. They are both contraindicated, and I believe are now passing out of use except in selected cases.

From the use of these and a multitude of other digestive disturbers some physicians have gone to the other extreme, and are asserting that all that is necessary in this disease is to live and sleep out of doors.

Somewhere I have read that a shanty which sheltered a pig burned down, and the taste of the roasted pig was so delicious that in a short time the hill sides were aglow with burning shanties. One day some one discovered that a pig could be roasted without burning a house. Some day some one will discover that a tubercular patient can obtain rest without putting him in a tent, for to my mind almost the entire value of

the so-called open air treatment is the element of rest.

A man cannot put any more water in his stomach if he drinks from a river than if he drinks from a glass: and a man cannot get any more or any better air in his lungs breathing in the open air than he could in a properly ventilated room. And to me the vaunted claims for the so-called open air cure of tuberculosis is the most extraordinary exhibition of therapeutic nihilism of modern times.

Just think of it after twenty centuries of study and research, for members of the medical profession to say that the best way to fight the greatest plague that afflicts the human race is just to keep the patient out of doors. What an absurd confession of futility. But I know all members of the profession do not believe this, and it will have less and less followers as the years go by. We can understand the marvelous improvement that follows when tubercular patients are taken out of slums, hovels and tenements, and given a chance to breathe; but all tubercular patients do not live in tenements, and if impure air is the cause in all cases then architects ought to go out of business and hide their heads in shame. If impure air is not the cause in all cases why place all patients out of doors? Besides tuberculosis prevails in countries where doors and windows are forever open.

The claim that life in the open air is all that is necessary to cure consumption is made today by men who a few years ago were going to eliminate tuberculosis from the list of man's ailments by the use of tuberculin and its congeners. They failed. Patients persisted in dying contrary to all their laws why they should not die; and they have gone to the other extreme, and are now advocating a therapeutic iconoclasm abhorrent to the teachings of medicine, science, and of humanity.

Have faith in God, take milk and eggs, and keep out of doors. Faugh! What is this but a grand larceny of Christian science humbugery?

Mr. President, pulmonary tuberculosis is a disease protean in its forms and varied in its manifestations, and demands unceasing vigilance and unwearied care. We cannot treat tubercular patients automatically like machines: we cannot give them a number and have them follow inflexible rules. We must individualize, and each tubercular patient offers a separate and distinct problem for solution.

No two patients are exactly alike in cough, sleep, appetite, pain, digestion, pulse rate, or hemorrhage. Each indication must be met as it arises. Each patient must be treated without regard to the rules laid down for another, ever bearing in mind that the disease is one of the general system, and the lungs merely a local manifestation of it.

I agree with the most enthusiastic open air advocate as to the importance of fresh air in this disease; no one disputes that. But I emphatically take issue with the statement that this is all that is needed. In the hands of experienced specialists the open air cure will be prescribed only in cases where it is indicated, and the proper auxillary treatment given. But its tremendous danger lies in the fact that it will be used without discrimination, and will surely be taken up by the laity as a self cure. We have in our town a so-called osteopath, without medical experience, who extensively advertises his open air cures. I have read of more than one death from pneumonia by this system, and in my own town I have seen during the past two years patients placed in shacks and tents die within one, two, and three weeks after their arrival here.

I believe it the solemn duty of teachers of phthisio therapy to emphasize the importance of discrimination in selecting cases for out door treatment. Air, like water, is simple, but water can be used in this disease with dire and fatal results.

The fact that patients get well without other treatment than living and sleeping out of doors does not prove it the most valuable. I have seen visitors here, some with hemorrhages, take no treatment, fill up on corn whiskey, play cards half the night, and still recover.

Nutrition and rest—therein lies success.

Rest for the mind, rest for the body, rest for lungs and heart. Rest for the mind means that the physician should be counselor and friend as well; minimizing causes for worry and discouragement. Rest for the body means rest in doors or out, in a bed or in a hammock, as occasion may require. It means too, abstinence from exhausting tub and shower baths. Massage takes the place of exercise, and is an absolute necessity; hand baths of different kinds keeps the skin functionating, and that too is a necessity. No patient with a hide bound skin ever recovered. Rest is especially important in hemorrhage. Ergot is not only useless but positively harmful.

Rest for the heart means to have one beat do the work of two. All the resources at our command should be used to bring the pulse rate near to normal: for the prognosis good or bad may in most cases be judged from the pulse rate alone. Strychnine is an ideal tonic, but cannot be given to all patients. It is contraindicated in tachycardia and these people form the most troublesome class of patients. For them digitalis and

bromides give best results. Aconite, veratrum, and gelseminum should be more widely used; I generally give them in conjunction with digitalis. Nitroglycerine, strophantus and caffeine all have indications in particular cases, and the question of heart tonics or heart sedatives is a most important one and should be carefully studied. Rest for the lungs means rest from unnecessary cough. This must be controlled at all hazards. It requires also the abatement of pleurisy and neuralgic pains, because these cause accelerated breathing.

I do not hesitate to give opium or some similar drug to full effect when a patient first comes under treatment. It will not long be needed if the throat be cared for. The large majority of what I call unnecessary coughs are caused by abnormal conditions in the throat. Even where no growths, or elongated uvulvas are found a patient with a hacking, continous cough, will have a mucous membrane congested. Here is where a local astringent yields marvelous results. I have tried many drugs, but the old-fashioned glycerite of tannin is as good as any. Swabbing with a probang is of no effect. I use a medium length polypus forceps which holds firmly a cotton mop, and this is rubbed in with some force over tonsils, pharynx, and posterior nares. In the latter place especially is often found the cause of cough, as a string of phleghm hangs from it causing constant irritation. Albolene with menthol, chloretone and other drugs I use constantly.

A coarse sprav, especially if used with force, will increase the irritation, but a fine spray gently applied coats the membrane with oil and the cough and irritation ceases. It is routine practice in our institution to oil a patient's throat as often as necessary to control cough, and when this is done very little medication is needed. Even in the last stages when anaemia takes the place of congestion the oil spray is still grateful and soothing. With a little manipulation the spray can be thrown in the trachea and is thus indicated in some cases.

Seiler's tablets, Dobell's solution and like preparations should not be used in these cases. In fact, I do not think they are indicated in any kind of case, because we can do with oil all we can do with water, and there is no comparison as to results.

I will add, however, that local applications will not cure a throat unless the stomach is kept clean. This I have demonstrated over and over again. If results do not come then, look out for uric acid, and treat accordingly.

Pains in the pleural region generally yield readily to the static breeze or spark: if that is not at hand positive galvanism gives equally good results. If neither can be used small blisters about one inch square will give relief. Canthos is very effective and is besides convenient to use.

Finally, I repeat we must look at the body as a whole, from the nares to the anus. We may find ulcerated teeth, a dilated stomach, a congested liver or spleen, or a contracted and spasmodic anal sphincter.

The nearer we approach to personal supervision of details the nearer we come to the ideal treatment.

Supervision of food, drink, clothing and exercise: supervision of the whole physical, mental and moral life of the patient. This would naturally limit the number of patients that could be treated by one physician, and that is precisely as it should be.

Treatment of Typhoid Fever.*

By Dr. J. M. Matthews, Mt Pleasant, N. C.

This subject is so common, and has been before the Medical Society so often, that I feel a delicacy in attempting to write a paper. But perhaps it will be of some interest to some of us to discuss it again.

When called to a typhoid patient I usually give a dose of calomel to open the bowels. In ten or twelve hours after there has been a good action of the bowels I give ten minims of aromatic sulphuric acid or diluted hydrocloric acid every four hours. I also give ten minims of oil of turpentine three or four times a day, unless the patient has trouble passing his water. I give liquid diet from first to last, or till his fever has been broken about two weeks, and no tympanites. If the digestion is good I think milk diet is the best. If sweet milk curdles I use pepsin, or soda or lime water after the milk. Sometimes buttermilk is relished and agrees with the patient better than sweet milk. If the patient cannot take the milk I often use a teaspoonful of brandy to a glass of milk. Some people take the milk well to get the brandy.

To reduce the temperature nothing is better than cold water, if the patient can bear it well, if not use warm instead. I think the plunge bath is all right when it can be conveniently used and the patient can bear it. I usually prefer sprinkling or pouring as the most convenient mode, when the patient is weak. If the fever is hard to control I use an oil cloth under the patient, raise it on each side so the water will run off into a tub at the foot of the bed. This method bathes the back, and has a tendency to prevent bed-sores.

I had a patient some years ago who had been drinking a large amount of new

*Read before the North Carolina Medical Society, Charlotte, N. C.

brandy. His temperature rose to one hundred and five, and his pulse so weak and fast I could not count them. I put him in a wet sheet, poured two buckets of ice water on him, kept him there for twenty-five minutes, repeated the bath in twenty-four hours; patient rested well after each bath, and made a good recovery. While bathing it is well to keep up friction by rubbing the patient with a rough cloth, thereby producing good capiliary circulation. Always bathe if there are no contraindications when the temperature is above one hundred and two degrees. It is sometimes necessary to bathe even when the temperature is below one hundred and two.

Medical Treatment —Keep the secretions as nearly normal as possible. For a dry tongue you have no better remedy than turpentine, as it acts on the secretions. I give oil of turpentine from the first to keep the tongue moist. Keep the kidneys acting with sweet spirits of niter, or some mild diuretic. For constipation I use the injection of warm water, or give cascara evacuant or castor oil. I do not hesitate to give minute doses of calomel when I think it necessary, because in this disease the liver is always sluggish. This draws the bile from the gall bladder and flushes the alimentary canal with natures best antiseptic. For intestinal antiseptics I use salol and sometimes sulpho carbolate of zinc. For typanites I use oil of turpentine internally and externally over the bowels. If the digestion is not good I give pepsin after the milk. If the bowels move too often I give sub-nitrate of bismuth, or some form of opium. For hemorrhage of the bowels I use an opiate to check the peristalic action of the bowels, and put ice, or cloths wet in cold water over the abdomen. When the hemorrhage is great it is sometimes necessary to use bottles of hot water about the patient to keep up capiliary circulation. A normal saline solution is sometimes useful. For stimulation I use brandy and strychnine. I also use tincture of digitalis if the fever is broken and the pulse is very fast and weak.

When the bowels are perforated give an opiate to quiet the patient, and turn him over to the surgeon. But if I were to attempt to give a treatment in full for all complications and symptoms it would make this paper entirely too long. You must treat the symptoms as they arise, exercising your good common sense.

Dr. M. L. Matthews and I had fifty-five cases of typhoid fever in 1903. Four of them had hemorrhage of the bowels. One died of hemorrhage, and one of intussusception of the descending colon. Only two out of the fifty-five died after having received the treatment I have given you today. This is the treatment I have used for several years with marked success.

The Open Gauze Method of Administering Anaesthetics.

By William Moncure, M. D., 507 8 Tucker Building, Raleigh, N. C.

We have all often heard the old adage, there is nothing new except that which has been forgotten. The subject of this short paper comes within the province of neither, as it is not exactly forgotten nor entirely new. This manner of administering an anaesthetic is increasing in popularity every day, as is demonstrated by the number of surgical clinics adopting it and also its efficiency has been proven by its continued use in some of the largest and best regulated clinics in this country.

It is not my purpose here to tire you with statistics or bibliographical references; but I will be content to repeat only one statement, made recently by the anaesthetist to Dr. Joseph Price's clinic in Philadelphia, viz: that, in three thousand anaesthetizations by the gauze method in said clinic, not once had the operatron been interrupted on account of the condition of the patient.

The continuous drop has been used for a long time and various mechanical droppers have been devised, but it is the purpose of this paper to describe a drop method with plain gauze for an inhaler and free from all mechanical incumbrances.

The method is applicable to any of the general anaesthetics, chloroform, ethyl chloride and ether.

When chloroform and ethyl chloride are used, much wider mesh and fewer layers of gauze are essential, because they require considerably less of the anaesthetic and a larger proportion of admixed atmosphere (not oxygen alone).

The method is as follows: The gauze is folded into layers, from six to ten in thickness according to the mesh. It is often overlooked to fold the gauze so that the edges are entirely free from ravels, which cause considerable trouble and delay when allowed to enter the respiratory passages. The size of the gauze-pad should be about four by six inches. Ether should be dispensed in four-ounce bottles. I find the thick, round bottle is most convenient. The patient's lips and nares are anointed with vaseline.

The gauze pad, beginning with six to eight layers, is placed over the patient's mouth and nose, the centre of the gauze

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raised in the manner of a tent and held in this position with the thumb and index finger of the left hand. The patient is now instructed to breathe through the gauze several times in a natural way before the ether is added, in order to quiet his mind and to forcibly demonstrate to him the fact that the gauze will in no way interfere with the free access of air.

It is of considerable value in quieting the invariable nervousness of patients about to enter the anaesthetic state, to put them entirely at their ease as far as it is within the power of the anaesthetizer to accomplish, by giving them every assurance he possibly can of their safety from the anaesthetic. Caution them to keep their eyes closed, to breathe quietly and naturally and state to them that the ether will be given slowly at first; and that, by breathing naturally and quietly, choking sensations will be avoided in a large measure. Words to this effect certainly go a long way in producing a quiet and unexcited first stage: and it is well to add, in this connection, that a simple piece of gauze over one's face is certainly more conducive to a quiet mind than the formidable mechanical apparatus or the cone sometimes used for anaesthesia. More especially is this so, when the patient is the last of a series of anaesthesias and the respiratory waste-products of his more fortunate predecessors are still tenaciously clinging to the inhaler.

After the patient has been assured of the simplicity of the gauze and how easy it is to breathe through its mesh, the ether is dropped, one minim at a time, on the highest point of the gauze. Some prefer a mechanical dropper, but there is no better instrument constructed for regulating the size and frequency of the drop than one's index finger. It has often been asked: "Does this not chill and benumb the finger to such a degree that it becomes useless as a dropper?" The answer is, to try it only once and you will soon find that the finger reacts from the primary numbness and becomes unusually warm, though not uncomfortably so.

The drops are gradually increased in frequency, never falling in the same spot twice in succession, but in rotation over the surface of the gauze directly above the mouth and nares.

It is preferable to hold the gauze over the face in a way to prevent air from entering beneath the layers, thus forcing it to penetrate the mesh. This facilitates the evaporation of the ether and insures its thorough admixture with air. So the patient breathes with ease the ether-vapor diluted with air, and does so without the usual coughing and struggling so often seen when he receives it in gulps, as it is indifferently poured into the various cones.

Many patients have a very marked increase in the flow of saliva; but this is easily taken care of so long as they are able to swallow. As soon as they get well under and swallow with difficulty, the saliva and secretions of the naso-pharynx trickle back into the larynx; and this is a frequent cause of the so-called "mucous in the throat." In this class of patients, as they are nearing complete anaesthesia, I have found it advantageous to insert well back into the mouth two strips of gauze, free of ravels, to absorb the excess of saliva and bring it out of the mouth by capillary action.

When the patient reaches the stage of excitement the frequency of the drop is increased, but never to the point of saturating the gauze with ether—but rather, with ether-*vapor*, because the saturation of the gauze with any *liquid* prevents the penetration of air through the mesh and also hinders the ether's complete evaporation. For this reason, when the gauze becomes wet with the water of evaporation and the secretions from the mouth, time is saved by replacing the wet gauze with a fresh, dry piece.

After the stage of excitement has passed, and the patient has become fully anaesthetized, the frequency and size of the drop are decreased. For the remainder of the anaesthesia, ether is dropped as needed; and this takes much less for the same length of time than during the induction of anaesthesia.

The gauze is easily held in place, always with the left hand—the little finger behind the ramus of the jaw constantly holding this forward; the ring-finger on the facial artery; the index, middle finger and thumb holding the gauze-pad in position, while the patient's head is always turned to the right. The right hand holds the ether bottle and the index-finger over the mouth of the bottle regulates the drop. While the right hand is not engaged in administering the ether it is free to elicit the reflexes and pulse. Should one find that he is unable to use the finger as a dropper, a cork, with a groove cut on either side, will allow the entrance of air and the gradual escape of ether from the bottle. The gauze can at all times be easily and conveniently lifted to expose the eye for the reflexes, to observe the facial expression and the condition of the capillary circulation—especially of the face and ears.

Whenever it is necessary to operate on a patient in any of the positions other than flat of the back, the gauze can be held in place with greater ease than a cone or cumbersome apparatus. Thus, with all the reflexes—circulatory, respiratory, secretory and vaso-motor systems—always conven-

iently before the eye, dangerous symptoms can, in the majority of cases, be anticipated.

All stimulating drugs, when pushed beyond a certain point, become depressants; and this is true of ether. But the open-gauze method affords a free admixture of oxygen and the regulated drop insures the sustained stimulant effect of the ether and a better tolerance of it by the patient—two very important factors in diminishing the after-nausea and vomiting.

The anaesthesia, also, in the vast majority of cases, runs a smooth and even course, without the interruptions so annoying to the operator, and the patient at no time receives enough ether to be depressed by its excess, because he is constantly getting small quantities of nascent ether-vapor at frequent and regular intervals, which is not the case with other forms of inhalers. For this reason, the method has been aptly described as "the minimum amount in the minimum fashion."

The method has to recommend it, and certainly of no little importance, cleanliness, cheapness, and the fact that it is ever at hand on a moment's notice.

Dr. Lawrence E. Holmes alluded to the method before this Society on a former occasion in connection with post-operative nausea and vomiting, and whatever there may be of repetition here only lends emphasis to a very efficient, convenient, cleanly and useful method at the hands of all and at all times.

Treatment of Pneumonia.†

By Lloyd P. Russell, Fletcher, N. C.

The harvest of this fatal disease has just past. Hence, I have chosen this subject. I shall not try to offer anything new in the treatment of Pneumonia, but only to point out the agents at our command that are most likely to carry us safely through. There is no specific as yet. The antitoxin is yet in the experimental stage, and we must be contented with the remedies that are within our grasp. Yet we hope in the near future, that the laboratories will produce an antitoxin that will control pneumonia as we now do diphtheria: Such a remedy would be a God send, as pneumonia is one of the most fatal diseases that we have to contend with, and the death rate is on the increase.

When called to see a patient, suffering with pneumonia, the first thing I order is to have all the wearing apparel removed and a light gown put on which should be open in front, this enables me to make my examinations without unnecessarily disturbing the patient. The patient should be in a light, well ventilated room. Preferably an up-stairs room. The bed should be smooth and no more cover used than is necessary; for too much bed clothing is a nuisance. The patient should be kept absolutely quiet. Not more than one or two persons in the room at one time.

I am a strong believer in elimination in the beginning of an attack of pneumonia. Get the bowels, kidneys and skin acting well, and you have certainly got your patient in a more comfortable condition. I usually give my patient from three to ten grains of calomel combined with one-fourth to one grain of podophyllin, being governed by the age and strength of the patient, as to dosage. This is followed by a tablespoonful of 'sulphate of magnesia.' If I do not get the desired effect, I repeat in twenty-four hours. By this time we hope to have all the eliminative organs acting well. The congestion is relieved and the patient is feeling more comfortable, and is better prepared to fight the battle which is now on him. The pain in the side is best relieved by hypodermic injection of one-fourth grain of morphia.

Then I order antiphlogistine applied hot, well over the affected area; both in front and behind; and I am sure that I have had some good results from antiphlogistine. It relieves the congestion of the lungs and enables our patient to breathe better through the affected parts. The antiphlogistine should be renewed in twelve or twenty-four hours.

Next we must keep the temperature within the proper bounds, and our most trustworthy agent is hydrotherapy. I think the patient should have a tepid sponge bath every day. It keeps the pores of the skin open, lowers the temperature, and if given at night, will have a tendency to produce sleep, which is very necessary to our patient.

If the temperature reaches 104 or 105, we should resort to the ice-cap, one should be applied to the head, and another to the stomach or affected side: Sometimes the cold pack to the affected side acts admirably well in relieving the pain.

I do not believe in the extreme cold bath, as it is quite an ordeal for our patient to stand; it unnecessarily worries our patient, taking the energy from him, that we need to carry us over the crisis. And, it has been my experience that after having used those extreme measures, the temperature will run higher when it returns than if we were to use a happy medium of hydrotherapy. Example the ice-cap.

The patient's mouth and teeth should be cared for, as the sordes will soon decompose

† Read before the North Carolina State Medical Society, Charlotte, N. C.

and give the patient a very foul smelling breath and bad taste, and cause him to reject nourishment. Listerine, one-half strength, or carbolized water are both excellent mouth washes.

What shall we use for expectorants? Aromatic spirits of ammonia, and syrup senega, aa. parts given in teaspoonful doses every four hours, has acted well with me.

To relieve the cough and produce rest, Dovers Powders given in five-grain doses act very well. Unfortunately it is apt to disturb the stomach, and opium checks the secretion of the body. So we should be very cautious in the treatment of pneumonia.

If the patient is extremely nervous I think it by far better to use the bromide of soda, given in five grain doses as indications require. The bromide should be given in the elixir lactopeptine, as it is much less liable to disturb the stomach in this way.

The digestive tract must be looked after, for this salol and elixir lactopeptine keeps it in excellent condition. I usually give two grains of salol in a teaspoonful of elixir lactopeptine every four hours. If the tongue is dry and heavily coated, oil of turpentine acts quite well given in six or eight drop doses every six hours. The diet should consist of liquids. Milk being the best—sweet or butter milk. The animal broths are all right, but I find as a general rule, that patients do not take them very well. Eggnog, or, egg-albumin are usually borne very well.

We should allow our patients plenty of water, lemonade or the carbonated waters are very useful, as they help to loosen the mucous that accumulates in the bronchi and makes it more easily expelled.

The next and most important is the heart, and this is, as you all know, our great danger in pneumonia. Strychnine is our best heart tonic. I usually start early in the disease with a one-fortieth grain given every four hours and increase the dose to one-thirtieth or even one-twentieth of a grain. I do not believe in too much alcohol, as the secondary effects are depressing, though I think an ounce or two of good brandy or whiskey is beneficial, given every four hours, alternating the time of strychnine by giving brandy between the strychnine. Its depressing effects are overcome by the strychnine.

If the pulse is very feeble, one or two pints of normal salt solution injected into the rectum acts very well.

Summing up the whole; first eliminate your patient, get all the poisonous material in his system out. Keep your temperature within the bounds; nourish your patient; keep him absolutely quiet and sustain your heart until the crisis has passed, and you have won the victory.

I shall not speak of the complications, as they are comparatively few, compared with the other diseases.

Gentlemen, I thank you all for the opportunity you have given me to read this paper.

Mitral Insufficiency: Symptoms and Treatment.*

By Dr. O. L. Ray, Raleigh, N. C., R. F. D.

Mr. President and Members of the North Carolina Medical Society:

In attempting to find a subject for a paper to present to you it occurred to me that while I had nothing original to offer we might study the subject of my brief paper, "Mitral Insufficiency: Its Symptoms and Treatment" with interest and perhaps profit, as it has fallen to my lot during my short professional experience (7 years) to have under my care several patients suffering from it, the most common of all the cardiac insufficiencies.

Before entering upon a discussion of the subject it might not be out of place to consider the morbid physiology of the heart in this trouble.

In mitral insufficiency the blood flows in two directions during systole of left ventricle. The greater amount escapes into aorta, as in health. The smaller quantity regurgitates through the imperfectly guarded left auriculo-ventricular orifice into left auricle during diastole, and this with the blood received from pulmonary veins causes distension of auricle, and if the regurgitation progresses gradually hypertrophy results, which enables the auricle during systole to completely empty itself, and delivers an over-amount of blood to left ventricle and this causes dilatation, and to expel this extra amount of blood the ventricle must hypertrophy (to furnish needed amount of blood to the general system and to make up for lost blood due to regurgitation into auricle). The engorgement of left auricle renders it difficult for the pulmonary veins to effectually empty themselves into left auricle and therefore the lungs become engorged, and here the right ventricle finds difficulty in pumping blood through the lungs and demands greater force on part of right ventricle and hypertrophy results and finally dilatation takes place from over-work and produces insufficiency of the tricuspid valves, the right auricle undergoes dilatation and hypertrophy, but the hypertrophied auricle fails to empty itself and we have engorgement of venous circulation.

*Read before the North Carolina Medical Society at Charlotte, N. C.

Symptoms —In a good many cases the disease in its beginning has no symptoms for years after lesion is established, which causes patient to seek medical advice, owing to compensation keeping in pace with the development of the disease. It is upon extra exertion that symptoms of cardiac embarrassment ensue, such as dyspnoea and palpitation, and these symptoms are usually attributed to some digestive disturbance by patient.

If no disease or hard work causes weakening of the cardiac muscles the patient will pass with comfort to old age, when symptoms of cardiac failure will develop, due to changes in cardiac muscles incident to old age, also the heart's work is increased, as it takes a greater amount of force to send the blood to all parts of the body.

Usually about the first symptoms the patient complains of is shortness of breath on slightest exertion, usually accompanied by a "fluttering" or palpitation of the heart and indigestion.

Pain and tenderness over the heart and an oppressed feeling of the chest. Dizziness on stooping over and rising suddenly, and often pain extending down left arm. Patient is unable to rest lying down owing to the engorged lungs, dyspnoea becomes permanent due to failing compensation. Cyanosis of lips and fingers due to impaired capillary circulation, repeated attacks of bronchitis from congestion of the lungs are experienced, and in coughing the sputum is sometimes blood-stained and the dyspnoea becomes worse. In advanced cases where we have congestion of the stomach and kidneys, we have a disturbance of these organs, as indigestion, gastritis, albuminuria, and these complications or secondary affected organs have symptoms of their own, and these, with the already existing trouble, sometimes make it hard to tell which is the primary trouble unless we have had the patient constantly under our care.

The urine upon examination is scanty and highly colored and of high sp. gr. and we find large quantities of albumen. The liver becomes congested, enlarged and tender upon pressure, and when the tricuspid valves give way we have a pulsating liver and jugular pulse and this is pathognomonic of tricuspid insufficiency. General effusion into the serous and plural cavities result.

Physical Signs.—(Inspection). We will find the apex beat out of normal position, which is one and one-half inches below and within the nipple line and between the fifth and sixth ribs. The beat is more forcible and is displaced to the left. The position of apex beat depends upon the amount of dilatation of the ventricles. Sometimes we find impulse in the second interspace to the left.

Palpation simply verifies inspection and determines more accurately the apex beat.

The pulse at first is unaffected when compensation is complete, although the volume is lacking, but later, when compensation fails, it becomes frequent, irregular, weak, and intermits.

Percussion.—The area of dullness is greatly enlarged from dilatation of the heart cavities.

The enlargement is usually transverse or lateral, and may extend to right edge of sternum due to dilatation of right ventricle and as far as left of nipple from dilatation and hypertrophy of left ventricle.

Auscultation.—You find a systolic murmur which is soft and loud in the mitral area, which is located at the apex beat, and the murmur is conducted into left axilla under the angle of the left scapula, and if very loud may be heard in any part of the chest, but best at apex beat (this being a very distinctive feature of the disease).

As the right side of the heart becomes affected we have accentuation of the second sound of the heart which is heard in the second interspace to the left of the sternum. When the tricuspid valves fail we have a systolic murmur in the tricuspid area which is heard best at the fifth costal cartilage to right of sternum.

Treatment – The first treatment we should consider in this disease, as in all diseases, is the preventive treatment, and this should be borne in mind when treating a patient with a disease where the heart is likely to become affected, secondarily, such diseases as acute rheumatism, diphtheria, Bright's disease and acute infectious fevers. We should be on our guard so that we may be able to cope with the condition if it should present itself and the treatment should depend upon the severity of the involvement of the heart.

The giving of heart tonics to patients in this trouble before signs of cardiac failure present themselves often does harm instead of good, because the natural compensation may be disturbed and the patient will show symptoms of cardiac failure for the first time, neither does the presence of valvular lesion indicate direct treatment of the heart until it begins to show symptoms of failure, then we can resort to cardiac tonics.

During the quiescent period we should look after the patient's general health, and see that every organ is performing its function properly.

The medicinal treatment in the beginning of failure of compensation and before should be iron in some form, and in my opinion the Peptonate of Iron is the best form in

which to administer it, as it takes additional work off the digestive organs, and is ready for absorption and assimilation when taken into the stomach.

By giving iron, the oxygen-carrying agent to the blood and tissues, we overcome the imperfect oxygenation of the blood to a certain extent, caused by impaired pulmonary circulation, and we have good, rich blood reaching the heart muscles through the coronary arteries and this combined with prolonged rest brings about a permanent compensation in some cases where cardiac stimulants fail.

Rest is a very important factor when compensation is failing, both of body and mind. Although the heart is an organ which cannot have complete rest at any time, its work can be diminished from 15 to 20 per cent. by a prolonged rest in bed from six to eight weeks.

Shocks of all kind are to be avoided. Exercise in the beginning before symptoms of cardiac failure appear should be moderate and never excessive and taken in open air.

Sleeping apartments should be well ventilated, some preferring the patient to sleep out of doors- When cardiac failure is great enough to prevent out-door exercise, then massage, regulated according to strength of patient, is good.

Closely related to the relief of all unnecessary work of the heart is the management of the diet. It should be light and nutritious and mostly of proteids, and of such a nature as not to cause fermentation in stomach or intestines, as this will aggravate the trouble. Should any disturbance of the stomach or intestines arise digestants should be given to aid the stomach, while looking after the primary trouble. Meals should be given often and in small quantities. The selection of the ideal dietary in each individual case must be the result of an intimate acquaintance with the patient's digestive ability and tastes and a thorough knowledge of the nutritive value of food stuffs. Substances which are bulky and of small nutritive value should be cut out.

In advanced cases where there is an accumulation of dropsical effusion the diet should be entirely liquid and reduced to as small amount as possible.

When compensation has failed the patient should be warned of his condition, so he may avoid any severe effort of any kind, as this may cause sudden death, or if not, do irreparable damage.

Digitalis is the best cardiac stimulant, its action upon the heart increases the force of the systole and by prolonging the diastole it improves the nutrition of the cardiac muscles.

While much benefit may be derived from the use of this drug, we should bear in mind the fact that it should not be administered in too large doses, as is often the case, some giving 10 to 20 minims three times a day, with the result that in a few days the heart is over-stimulated and instead of doing good it may do serious harm, and if persisted in for a considerable length of time may result in sudden death of patient.

Digitalis in over doses produces a marked irregularity of force in the heart. The urine is decreased instead of increased as it should be.

It has been my experience that small doses combined with the "rest cure" give satisfactory results.

The only conditions in which I use large doses are when patient's condition demands immediate stimulation, or when from some cause the heart does not respond to smaller doses.

When patient's condition is so critical that immediate stimulation is necessary, it is better to give more rapidly acting stimulants until digitalis has time to act, but while we have in mind the fact that digitalis is a drug that produces its effects slowly, we should also remember its effects are maintained for sometime after its use has been stopped. I have always found it satisfactory after having given it in large doses, to decrease the quantity to about one-half or less the original dose in a few days.

The infusion of digitalis has been given by some where dropsy is present, but as it is very apt to disorder the stomach I think that it aggravates the existing trouble, thereby causing more harm than the slight increase in diuretic power does good.

Where the arterial tension is higher than normal nitroglycerine should be given, as this reduces the tension. It is often given with digitalis to counteract the arterial effect of that drug.

Strophanthus possesses the advantage of not raising the arterial pressure as does digitalis, though a much less powerful stimulant.

Where there is a great amount of effusion in the pleural and abdominal cavities and digitalis fails to remove this effectually, then one of the salines in concentrated solution should be given every morning.

Periodical doses of calomel or blue mass does good, and especially where the liver is congested.

Usually digitalis acts better after the administration of calomel or blue mass.

I have also used apocynum cannabinum effectually in some cases, but this in large doses is apt to cause vomiting and diarrhoea.

A combination of powdered squills, digitalis and calomel, equal parts, is good to

remove the effusion, but an occasional dose of saline is necessary to clear the calomel away. In cases where this fails to relieve tapping of the pleural and abdominal cavities are resorted to, also puncture of the leg. Bleeding has been known to give relief in desperate cases, where there is distention of the right side of the heart with pulmonary congestion.

Insomnia that accompanies this disease is usually relieved by the use of codeine. If this fails then give morphine, which, however, cannot be given hypodermically if dropsy is present. These drugs are also used to relieve the dyspnoea, and in severe cases the administration of oxygen has proven beneficial for the dyspnoea.

The palpitation and irregularity of the heart is often relieved by combining belladonna with digitalis, sometimes a belladonna plaster over the heart gives relief.

The Use of the Microscope in General Practice.*

By Everett A. Lockett, M. D., Winston-Salem, N. C.

All through the history of medicine from time to time instruments have been given us as a means of diagnosis, but there is none, perhaps, of more inestimable value than the microscope.

In order to successfully treat our patients it is essential that a diagnosis be made as soon as possible: it is not only due to the patient who trusts his health and perhaps life in our hands, but also gives the physician himself a better stand in the community when it becomes known that he makes his diagnoses at the beginning or or early in the course of the disease; rather than late or after the patient has gotten well.

The complaint has often been made that a physician is too busy to fool with a microscope—that only those who have nothing to do are always looking through microscopes. The busier a physician is the more occasion he has for using a microscope, for no one has a right to assume the responsibility of a case unless he be competent of treating it intelligently; and how can he do this without making a diagnosis, and in such a large percentage of cases, how can this be done without having recourse to microscopy.

That the microscope has a legitimate use in general practice none can gainsay. Everything cannot be told by the microscope, —the microscope will not diagnose rheumatism for us, neither does it help us in many of the nervous diseases, but there are comparatively few cases in which it will not help to clear up the diagnosis, and in all obscure cases, its use appears to me, to be indispensable, especially in cases where diagnosis is made by exclusion,

At this late date there are scarcely any infectious diseases the germs of which the bacteriologists have not taught us how to find, this in general practice we can find by examining the blood and excreta. Having done this early in the disease, the diagnosis being established we can give direction as to the proper care and sanitation of the patient, and, at the same time, protect the rest of the community from a similar infection.

To prepare to examine the blood and excreta does not require a very great expenditure of money, and an elaborate laboratory. Presupposing a previous training in bacteriology and urinalysis, the entire space required for a general practitioner's laboratory would not be greater than the top of an ordinary office desk, which may be placed in any convenient well-lighted corner of the office. This to contain any good microscope, with a two-thirds and a one-sixth objective; and if he can afford it, a twelfth oil immersion lens, a few test tubes, red and blue litmus, a bottle of pure nitric acid, Fehling's solution freshly prepared, a urinometer, a bottle of acetic acid, a bottle of triple stain, a bottle of methylene blue, a a bottle of carbol fuschin four per cent. solution of sulphuric acid, cover glasses and slides. With the above equipment any general practitioner is prepared to do the requisite amount of microscopic work and at the same time to do his patient the most good, to say nothing of the personal satisfaction to be derived from the consciousness of having made an early scientific diagnosis.

The physician who does this, has merely done his duty and deserves no praise; but is certainly not to receive censure and ridicule of his colleagues who don't feel able to go off and familiarize themselves with this work, or else are too lazy to do so.

There is scarcely a day in general practice that one does not have use for his microscope, in both medical and surgical cases. Just a few illustrations as to its practical value: It is very amusing at times, how many cases of malarial fever which ultimately turn into typhoid, a community has, which would not be the case were intelligent recourse had to the microscope.

"Malaria" is unquestionably used as a substitute when no diagnosis is made. In all cases of fever extending over three or four days, it is very desirable to examine the blood for malaria plasmadium, which can be readily found either with or without staining after a little experience and more

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or less perseverance at times, if they are there. Failing to find the malarial germs a leukocytic count is next made, and if no leukocytosis or a diminution in leukocytes is found typhoid fever is strongly to be suspected, the diagnosis of which in 98 per cent. of the cases is determined by means of the Widal test. Thus by the end of the eighth or ninth day of the fever the diagnosis made by the symptoms is confirmed by the microscope.

Again a differential diagnosis between acute, general military tuberculosis and typhoid fever is to be made early by means of the Widal test.

In cases of appendicitis and other acute abdominal conditions, pus formation is preceded by a leucocytosis which is detected by means of a microscopic examination of the blood.

A differential diagnosis and prognosis of the essential enemias can only be made by the microscopic examination of the blood.

In all cases of headaches the blood should be examined for malaria, after all renal complications are eliminated. Personally, if I may be pardoned for alluding to it, I recall one or two cases of headaches without any degree of periodicity and accompanied by a slight rise of temperature where the diagnosis of malaria was made and the patients entirely recovered after anti-malaria treatment.

Any case of cough extending over a few weeks the sputum should be examined for tubercle bacili. It sometimes being necessary to administer several doses of stimulating expectorants before the bacilli are found! Thus a diagnosis of tuberculosis, to my own certain knowledge has been made in several cases before the family ever suspected the real cause of the trouble. The patient being at this stage favorable for the arrest of the process.

Any suspicious secretions from the mucus surfaces should be carefully examined, especially in unsuspecting individuals, and Neisser's bacillus found before the patient is subjected to the humiliation if needs be, to be informed as to the true cause of his trouble.

An examination of the spinal fluid to my personal knowledge will aid in the prognosis of meningitis.

The diagnosis of hook worm can only be made positively after often repeated examinations of the feces.

In all cases of Bright's disease the urine should be examined for casts so as to determine the form of nephritis and be able to intelligently treat and prognosticate.

No cases of suspected itch can be positively diagnosed unless the mite is found.

Suspicious deposits in the throat should be immediately subjected to a microscopic examination as unquestionably cases of diphtheria are diagnosed very much earlier than otherwise, by waiting for the culture process; the antitoxine being administered several hours earlier than would otherwise have been the case.

Thus, in brief, I have outlined a few of the many invaluable uses to which the general practitioner can put his microscope.

Some Views on Curettement of the Uterus.†

By Dr. M. A. Royall, Yadkinville, N. C.

In this paper I make no pretensions to discuss all the conditions that indicate a curettement of the uterus as a means of treatment, nor the minute pathology of the different forms of disease in which it is commonly used. If anything I say suggests an agreement or disagreement I ask for a candid discussion, not only from the specialist but from the general practitioner also. I aim to give a very brief summary of the practical points from the standpoint of a general practitioner whose practice is remote from hospital centers. While in Philadelphia I heard a noted specialist say that while the general practitioner, who in most cases is not capable of making even a gynecological diagnosis, is apt to put in a pessary or scrape out the womb, often with the result of starting a pelvic inflammation that may end in death. We general practitioners see our patients going to the specialists, who are numerous in villages and cities. The specialist in gynecology is among the most active. When we look over the statistics of hospitals we find currettement by far the most numerous among operations and wonder if it is really so necessary. I think it would be instructive to follow these cases, and, if possible, take an internal view of the uterus and its surroundings and determine the conditions of the patient, physically and mentally. I think I might compare the results of the general practitioner's work with the results of the over-zealous operator, with credit to the former. But we bless the honest, conscientious specialist, to whom we are ever glad to turn in times of great responsibilities. The operator should have a definite knowledge of the conditions he is to relieve, based on pathological and bacteriological data and on clinical experience. The recent graduate is skilled in pathology and bacteriology, and is impressed with the idea that his diagnosis will be accurately made from this high standard. He will examine specimens for pathological lesions and bacteria, make blood counts, &c.

†Read before the North Carolina Medical Society at Charlotte, N. C.

That is right, but he will depend on these means of diagnosis more at first than later, when he will be guided largely by experience. We are instructed that all scrapings from the uterus should be examined under the microscope. In the city the surgeon has but to direct the pathologist to make the diagnosis and report. We hope the time will soon come when there will be an expert microscopist within reach of all general practitioners. The graduate of some years ago is not so familiar with bacteriology and pathology as the recent graduate, and consequently must depend upon practical experience. I shall very briefly discuss curettement in three conditions, viz.:

1st. For the removal of the remaining portions of an incomplete abortion.

2nd. For removal of septic matter after delivery.

3rd. For the removal of the superficial portions of the uterine mucosa in endometritis.

The physician spends many anxious hours waiting for the successful end of an abortion. We are advised by the extremist that if abortion is sure the patient should be given an anaesthetic, the cervix dilated, the uterus scraped with a sharp curette and the decidua removed, whether there is sepsis or not. In the light of my past experience, I am not yet convinced that such a vigorous procedure is necessary. I do not think we are justified in putting a patient under an anaesthetic until we are sure it is necessary, for I fear it may have remote effect which we never take into consideration. I think the abortion may be so managed and nature so assisted that the use of the curette will be seldom needed. In the first years of my practice I used the method of carefully and tightly tamponing the vagina, gave a sedative if necessary, and waited for the pains to do the work. In a few hours I removed the tampon and usually found the abortion complete. Sometimes it was found in the cervix and easily removed. In cases of early abortion if a bad odor developed I dilated gently with finger or dilator, removed what was left with the finger or dull curette, used an antiseptic intra-uterine douch and drained. I never packed the uterus for the purpose of drainage. I had to dilate two or three times in some cases, but seldom more. I swabbed the uterus with Churchill's tincture iodine when there were symptoms of sepsis. At that time I thought hemorrhage was a dangerous factor; but later I thought less of it and left off tamponing and dilated with the finger, if possible, and removed the contents of the uterus with the fingers. If I could not do this and hemorrhage continued I used the tampon with gratifying results. Afterward I tried the more vigorous treatment with the curette and did not give nature a chance, and following this I had the worst cases of sepsis I ever had. It may have been due to the improper use of the curette and lack of thorough operation, but I returned to the tampon method and when the abortion is progressing favorably I do not curette. When all else fails and septic symptoms appear, and flowing is severe and frequent, I curette with care, using the antiseptic precautions of a major operation.

After the second to the sixth month I use the tampon if the hemorrhage is severe. If the placenta does not come away, and it is adherent in its entirety, I watch the patient for hemorrhage till they do appear. In cases where the placenta is partly adherent and partly non-adherent hemorrhage is quite severe and sepsis more probable the tampon method will remove it quite as well as the curette. In one case of abortion at four months the placenta was firmly adherent. I kept patient under close observation and at the end of three weeks it came away with very little trouble. If hemorrhage continues dilate and curette with the precautions before mentioned, and drain by keeping the os open, but do not pack the uterus. I often apply Churchill's tincture of iodine and glycerine to the uterine membrane. We are taught to examine the placenta after labor to determine if any of it is left in the uterus. I do not think we can always tell; even then small pieces may be left. I think we are all agreed that there is more danger in curetteing in these cases than after early abortion. If all the septic material is not removed absorption takes place very much more readily because the glandular protective zone is gone. If after labor septic symptoms occur I dilate if necessary, and use antiseptic douches, and possibly iodine or ichthyol or a similar preparation. If symptoms continue I determine with the finger if any of the placenta is present and remove it with the finger or dull curette or forceps. Use hot antiseptic douches, supplemented with ichthyol and glycerine applications. If the sepsis still continues shall we curette? If we remove all the septic material we may have no further trouble, but if it is not thoroughly done it would be better not to interfere at all. I shall not consider the different classifications of endometritis, for after some study I am persuaded that it is a very indefinite disease, and it is not as prevalent as is supposed. Two varieties of endometritis will cover the essential symptoms of all:

1st. Interstitial; 2nd. Glandular. In both the principal symptom is menorrhagia. In the interstitial we have a purulent and a muco-purulent discharge. In the glandular

we have leucorrhea and hemorrhage. The catarrhal conditions observed in young unmarried women are due to vitiated blood, exposure, improper care at the menstrual period, uterine displacements, etc., and are not true endometritis. The married women we may treat locally as conditions indicate, repairing the perineum and cervix and correcting flexions. I do not think a curettement is indicated unless there are repeated severe hemorrhages or excessive flowing. I have had very little experience with endometritis due to the gonococci. I think even greater caution should be shown here because of the probable adhesions and disease of the tubes.

Some of the unpleasant consequences of curettement are: Sepsis from incomplete operations, perforation, atresia, peritonitis if the operation is too vigorous, and the immediate and remote dangers of the anaesthetic. In order to avoid the use of the curette, first tampon; second, dilate and drain; third, use antiseptics intelligently; fourth, use proper local and systemic treatment. As a rule curette only when hemorrhage is frequent and profuse, and then with the antiseptic precautions of a major operation.

Writer acknowledges his indebtedness to Howard Kelly, of Baltimore, W. A. B. Sellman, Baltimore, and E. D. Gardner, Hancock, Michigan.

Perineal Lacerations—Prevention and Treatment.†

By W. F. Mitchell, M. D., Shelby, N. C.

In a brief discussion of this subject I do not deem it necessary to enter into the anatomy of the perineum, and will only speak of this accident as it occurs in normal labor.

Of the many pathological conditions occasioned by labor, that of perineal laceration is one of the most frequent. It has always been difficult to give a correct estimate of what per cent. of women are lacerated during labor, as authorities differ as to what constitutes a laceration. German midwives are compelled by the Government to call a physician to close a laceration from one-half to two-thirds of an inch, including mucous membrane.

According to the classification adopted by Prof. Edward P. Davis, of Philadelphia, three-fourths of all primiparous and one-half of all multiparous patients sustain lacerations justifying suture. Another authority estimates that thirty-five per cent. of primiparae and about fifteen per cent. of multiparae are ruptured. Thus we see that no matter whose classification we accept the frequency of this accident is admitted by all. Yet, notwithstanding these facts, there are physicians who claim that they never meet with a laceration, and I can best answer such statements by quoting a well known obstetric authority who says: "The practitioner who claims that in an extensive practice he has never seen a lacerated perineum has become today a rara avis in the light of the recorded experience from hospitals, which certify to the necessarily frequent occurrence of this accident in the hands of the most expert."

When the many ills that naturally follow from this accident are considered it becomes the duty of the physician to use every means at his command to prevent the occurrence. Indeed, there is no accident of labor that is followed by so many complications as that of laceration of the pelvic floor. Rectocele, prolapse, and various forms of uterine displacements are the direct results of this accident.

I wish briefly to discuss some of the best ways to prevent this accident, as I believe it should be the aim of the physician to prevent its occurrence, even though we were always able to repair the lesion.

A proper understanding of the manner in which the delivery of the head is accomplished will go a long way to prevent rupture, as it is at this stage of labor that it most frequently occurs. It is very important for the physician to have a thorough knowledge of the mechanism at this stage, and unless he masters it his conduct of labor will be but little superior to that of a midwife.

In order to effect safe delivery and preserve the integrity of the perineum the following cardinal rules should be observed: The shortest diameter of the head should be constantly kept in relation to the antero-posterior diameter of the outlet, and this is best accomplished by keeping the chin flexed upon the sternum until the occiput engages under the pubic arch, extension then slowly takes place, counter pressure being made against the head to retard the progress of labor until the perineum is fully relaxed, as extension proceeds the head is supported and pressed against the pubic bones as it sweeps over the perineum.

The older obstetric writers laid much stress upon what they called perineal support; but experience has proven that this was not only erroneous, but positively dangerous. Much misunderstanding and confusion has been the outcome of this teaching, for the profession has never entirely gotten rid of the idea that the perineum must be supported. It is the head beyond question that needs to be supported, and

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any direct pressure of the perineum against the presenting part might cause the very injury that we wish to avert.

In my experience, chloroform is a most valuable agent for the relaxation of a rigid perineum, and should be classed among the preventive measures. The profession has been too chary of the use of anaesthetics in labor, and to my mind, without any good reason, for it is a noteworthy fact that accidents from their use in obstetrical practice have been exceedingly rare. When there is apprehension of injury to the perineum chloroform should be given intermittently during the second stage of labor, and as the head passes over the perineum it should be pushed almost to the surgical degree, and immediately withdrawn as soon as the head is delivered. When given in this manner it has little or no tendency to abate uterine contractions, nor have I ever had a hemorrhage from its use. Many physicians are prejudiced against chloroform for fear of hemorrhage; but there is little or no danger from this source unless anaesthesia is prolonged. There are few cases of primiparae in which I do not resort to chloroform, and in many instances it has been the means of preventing laceration when other means would have failed. The longer I practice obstetrics the more frequently I resort to chloroform anaesthesia, not only to prevent injuries but to relieve the intense suffering incident to parturition.

In the forceps we have a quick and efficient means of terminating prolonged labors, thus saving the patient unnecessary suffering and preventing injury to the pelvic floor. The forceps have a wide range of usefulness in obstetrical practice; but I wish to call especial attention to the following class of cases in which they are not only indicated, but the physician who fails to apply them is derelict in his duty.

After the first stage of labor is completed the head is forced down upon the pelvic floor, and although the uterine contractions may continue they are insufficient for the delivery of the child. The vagina becomes hot and dry, the soft parts swell, the head ceases to recede after each contraction, and the condition of the patient becomes one of great distress with the ultimate result of deep injury to the pelvic floor if not quickly relieved.

The application of the forceps in these cases will not only relieve the patient from an agonizing condition, but will be the means of preventing serious injury to the soft parts. The physician who sits idly by awaiting nature to effect delivery in these cases reflects no honor upon his profession, and fails to do his duty to his patient. A prolonging of this condition will result in the sloughing of the pelvic floor, and the physician should apply the forceps before the parts have become oedematous and the patient is exhausted. I am persuaded that we are disposed to rely too much on nature in our obstetrical work, and believe many injuries could be averted, and even lives saved if we were not so timid and hesitating in coming to the relief of nature.

Our modern civilization has evolved a class of nervous women who bear the shock and pain of labor with much less fortitude than did their mothers and grandmothers. Every physician who has been in active practice for any length of time will bear testimony to the fact that it is necessary to use the forceps, or resort to other means, to effect delivery with much greater frequency than formerly. There is a growing sentiment among the profession in favor of a more general use of chloroform and a more frequent resort to the forceps, not only as a means of preventing injury to the maternal soft parts, but to relieve the suffering of the parturient woman.

Laceration will sometimes occur after all the skill and resources of the physician have been taxed to the utmost. It is estimated that about 15 per cent. of the lacerations are unavoidable. After the delivery has been completed the physician should personally examine for this accident, as there may be deep laceration of the pelvic floor without any external evidence. When laceration has occurred it should be immediately repaired, unless contraindicated from extreme exhaustion of the patient. It is easy for the tired physician to persuade himself that these injuries will heal without suture, and it is wonderful how well nature repairs small lacerations; but the doctor has not fully performed his duty when he leaves his patient with an unrepaired laceration. The operation is usually not difficult, and the results are good when proper cleanliness is observed. It is true that it sometimes fails; but this in no way interferes with a subsequent operation. The immediate danger from an unrepaired laceration is infection, and if the patient is so fortunate as to escape this her convalescence is usually retarded, and ultimately she has to run the risk of rectocele, prolapse, or some uterine displacement, which are direct complications of this injury.

A visit to the clinics of our leading gynecologists will reveal the fact that a large per cent. of their operative work would have been rendered unnecessary had the obstetrician not been negligent of his duty. Hundreds and thousands of women annually submit to operations, which might have been averted by sewing up a lacerated perineum. These are facts that cannot be de-

nied, and they are a constant reflection upon the work of the general practitioner.

In concluding this imperfect presentation of this subject I wish to make an urgent plea for better obstetrical work, and if every physician would make it a rule to repair these injuries as they occur it would prove an inestimable blessing to the parturient woman, and our hospitals would no longer be filled by them seeking relief from the gynecologist.

Chorea Gravidarum, with Report of a Case.*

By Dr. J. M. Templeton, Cary, N. C.

Diseases that are commonest and those that are very rare are alike of interest to the physician; to the latter class belong cases of chorea complicating pregnancy, a condition that may confront the general practitioner at any time. This affection during pregnancy is characterized by the same symptoms that are presented in true chorea and the diagnosis may be as readily made.

It is seen oftenest in primipara, and those who have suffered from chorea in childhood are prone to have it return when they become pregnant, and the younger they are when pregnancy occurs the greater is the probability of their developing the disease. Except in pregnancy chorea rarely ever develops in the adult. The etiology of this disease is not clear, some authorities attribute it to rheumatism, or a rheumatic taint; others, and I think correctly, claim that its resemblance to eclampsia points to some underlying cause that produces puerperal convulsions and the pernicious vomiting of pregnancy. Postmortem examination show the motor cortex, intellectual centers and spinal cord to be affected. Chorea usually begins about the time foetal movements are felt, and this may be the exciting cause that so frequently produces it at this stage of child-bearing, though fright, emotion, lowered vitality and toxemia from any cause predispose to it. It is sometimes unilateral throughout an attack, but oftener begins on one side, extends, and becomes general. Gower reports 11 out of 64 cases on the right side, and 13 out of 64 on the left side. Severe cases are marked by violent movement, insomnia, interference with deglutition, involuntary passage of feces and urine and sometimes acute mania and paralysis. Lesions of the heart or other organs increase the gravity of cases and make even light attacks dangerous. The disease with which it is most likely to be confounded is hysteria, and as it occurs mostly in neurotic subjects prone to nervous manifestations it may require some care to differentiate them. In true chorea the movements are irregular and spasmodic, increased by motion and voluntary effort, while hysterical movements are sudden, isolated, and often rhythmical. Pregnancy is interrupted in probably one half the cases and the death rate to mothers is high.

As to treatment, emptying the uterus may be necessary in intractable cases. Rest in bed, as movement intensifies the disease, is desirable. Diet, hygiene and sanitation should of course be looked after, and the elimination of the patient receive marked attention. Of drugs there are in this, as in most other diseases, no specifics. Bromide, the coal-tar derivatives, opium and other narcotics and sedatives are indicated to control the symptoms. Arsenic, iron, quinine, strychnia and other tonics and alteratives are useful in the management of such cases. The only case that has come under my care was treated some three years ago.

She was 23 years old and in the second month of her second pregnancy. Up to the time chorea developed she had been in fair health, though she came of a neurotic family, her mother's mind being weak, one brother an idiot, a sister an epileptic, while a cousin had "spells" that were probably epileptic, and a maternal uncle had died in the asylum for insane.

When I saw her, some five hours after the attack began, the choreic movements were general, involving both sides of the whole body, and I was impressed with the marked severity in the abdominal muscles. She was complaining of severe pain in the head and back and much soreness of the muscles, her temperature was elevated about one degree. I had her put to bed, gave her 15 grains of bromide of potash and a hypodermic of morphia. This had a quieting effect and I directed the bromide to be repeated every hour until bedtime, when she was to have ten grains each of calomel and Dovers powder, to be followed by a saline next morning. Next morning the chorea returned, but was controlled by morphia until evening, when she had another attack relieved in the same way. I put her on arsenic, increasing rapidly to intolerance, and also small doses of quinine, the sedative and narcotics to be used as sparingly as possible and the emunctories stimulated highly. At the end of a week she was much improved, but not entirely free from the trouble. Continuing the tonics and eliminants I then put her on Exalgine, 30 grains per day, which reinforced by an occasional dose of bromide enabled me to discharge her about one month after the disease appeared. I directed her to take her tonic at intervals, keep her secretions in good

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condition, and as she was still very nervous use the sedatives occasionally. She did well until Sept. 2nd, when the chorea returned as severe as at the beginning. Treatment was only partially successful, and about ten days after the trouble returned I dilated the os and a few hours later delivered her of a boy. The disease disappeared almost at once, and she has since borne a child with no return of the chorea.

Management of the First Stage of Labor.*

By H. McKee Tucker, M. D, Professor of Obstetrics in the Medical Department of the University of North Carolina and Gynecology in the Leonard Medical School.

If a doctor is called to see a case of labor for the first time and finds a woman in the first stage, there five things he should do.

(1) Get her history, particularly with reference to rickets in childhood, and if multipara with the reference also to past labors, etc.

(2) Ascertain by external pelvimetry the probability of contracted pelvis, to be confirmed later by internal examination if suspected. At this time also determine the probable position and presentation by inspection, palpation and auscultation.

(3) See that bladder and rectum are emptied, the latter by enema, as the distention of either predisposes to uterine inertia. And a distended rectum narrows the pelvic canal as well as predisposing to infection.

(4) Direct the patient to be given a general bath followed by a disinfectant, the external genitalia and surrounding area with bi.chloride solution.

(5) Make internal examination with sterilized hands, separating labia with the fingers of the other hand, at the same time looking at the parts so as to introduce the examining finger directly into the vagina, and thereby avoid possible contamination from contact with the external genitals; trying to find the vaginal orifice without looking at the parts is false modesty and an inexcusable break in the technique.

The objects of this internal examination are: first and most important to determine the position, presentation and degree of engagement of the presenting part; the position of the perineum; size and dilability of the vagina; the presence of exostosis and tumors; the condition of the cervix, whether soft or rigid, thin or edematous; and last the movability of the child. After this, if everything is normal, pains regular and effectual in action is the course for the obstetrician, other than allowing his patient to walk or sit as she desires, as moving around hastens dilatation and makes her more content to go to bed when she has to. Do not allow her to continue erect posture after the cervix has dilated to the size of a dollar, as it predisposes to danger, both mother and child. After this time, by no means allow her to use commode or water closet, as she will often request, for it is possible for child to be born thus, suddenly into sewer or closet.

How many times should she be examined? As few times as possible, ascertaining all the foregoing facts at one examination, which can only be done by a *careful* and *always* methodical examination. So much for the normal case. Here let me say these really need no physician; the only need for him is to detect, and detect early, any complications or abnormalities which may be present, and treat these at the *proper* time and in the *proper* way. If this is always done, the maternal and foetal mortality would be practically nil, as it is these complications are often not ascertained until it is too late to correct them, and in this way countless mothers and children have been sacrificed. The importance of the early recognition of complications which prolong labor and make it difficult or which, if left unrecognized, threatens the life of either mother or child, or possibly both, can not be over-estimated. For instance, take a posterior face case. If this be recognized early, it may be converted into an anterior vertex, the most favorable position and presentation by external version, or if this fails it is possible to push the chin forward or perform an easy podalic version. While if unrecognized and allowed to go on for some time it may become impacted, which will necessitate a destructive operation, as well as endanger the mother's life by exhaustion, threatened rupture of the uterus, and increase risk of infection. In case of contracted pelvis, carcinoma of the cervix or rectum or anything which makes it impossible for delivery by the natural passages, the danger to mother and infant depends largely upon its early recognition during the first stage of labor if not before. If breech cases were always recognized during the first stage and converted into vertex cases by external version, you would have a foetal mortality of less than 5 per cent. instead of 30 per cent. as is the case in breech presentation. In short the treatment of all complications is to recognize them during the first stage of labor, if not before, and institute treatment before it is too late to save the life of infant, or before the mother's life is too far endangered. In cases of adynamic fevers or advanced disease of the heart, it is well to apply the forceps through a partly dilated cervix, and in this way facilitate its early dilatation and there-

*Read before the North Carolina Medical Society at Charlotte.

by save the woman the nervous strain and exhaustion of a prolonged first stage.

In this connection, let me emphasize the fact that no woman with advanced organic disease of the heart, especially if she has renal insufficiency as well, should be allowed to carry her child beyond the eighth and one-half or the ninth lunar month. At this time, premature labor should be induced, and if properly performed may be done without danger, insuring a very much easier and consequently a less dangerous labor.

Some may term this meddlesome midwifery, but, nevertheless, meddlesome or otherwise, it is the correct method.

The one thing that most often requires treatment is the prevention of a too prolonged first stage. In the large majority of these there is no real obstruction in the cervix, but is due almost always to deficient expulsive powers, uterine inertia, therefore we should direct our attention to the different means of stimulating the expulsive forces of the first stage of labor. These methods are applied both without and within the passages. All of our resources which are used without the passages, should be applied. If the patient is more or less tired out from a long continuation of feeble and ineffectual pains, the rational thing is to give her a sedative which will produce sleep and restore her nervous tone. The best is probably chloral or morphia. On awakening, the cervix will probably have softened, the pains will be strong and regular and the first stage proceed satisfactorily. If after administering the drugs, or if from the beginning they are ineffectual we should administer uterine and nervous stimulants. Quinine in a glass of sherry is often all that is needed. If the stomach is irritable, the bisulphate should be given by the rectum in twenty to thirty grain doses in the form of a suppository. Walking, as stated before, will often increase the contractions by reflex excitation. Hot and cold applications applied alternately to the hypogastrium will often be of benefit. Strychnine given hypodermically in one-sixtieth of a grain doses every fifteen minutes for three or four doses is often of benefit, especially in multipera with more or less flabby uteri. A better plan is probably to give one-thirtieth of a grain three times a day for the last four weeks before confinement. *Ergot* should never be given during the first or second stages of labor, except in delivery of the second child, in case of twins, or in those cases where you fear post partal hemorrhage and are prepared to empty the uterus at once. Any one who would give ergot, as is sometimes done to stimulate pains of the first stage, must certainly be ignorant of its mechanism and does not realize that while he is increasing the expulsive forces, he at the same time may be blocking up the gateway, the ergot sometimes acting on the circular fibres of the cervix, thereby causing its contraction. Occasionally we observe a tetanoid contraction, and when it exists oxytoxics are positively contra-indicated. Here you should administer a few drops of ether or chloroform, and if necessary hasten delivery by manual dilatation and extraction, as a prolonged and powerful tetanoid contraction may result in the death of the infant.

So much for the methods of accelerating the first stage of labor applied outside the passages.

Now just a few words in regard to the means of shortening the first stage of labor applied within the passages. As a general rule, we should avoid recourse to these as far as possible, as all are predisposed to some degree to sepsis, but there are times when it is necessary and we should recognize these and know how to deal with them. For instance, in case of placenta previa, premature separation of abnormally situated placenta, rigidity and cicatrical contraction of the cervix, eclampsia, imminent danger of the death of the mother and any condition which renders immediate emptying of the uterus necessary. The os may be dilated by Barnes' bags, by graduated bougies, by the fingers, by forceps or pulling on foot or leg in breech cases, by multiple incisions or by metal dilators.

In regard to the hydrostatic dilators of Barnes and Champetier de Ribes, they not only excite uterine contractions but also hasten dilatation of the os.

The objections to them are: they predispose to sepsis, mal positions and presentations, as well as being difficult to place. Although it is considered by some to be mal practice to assist ordinary dilatation with the fingers, yet when the cervix is soft and low down it is perfectly justifiable.

Incisions and instrumental dilatations are seldom indicated except where there are indications to extract the child at once. Sometimes you examine and find although the cervix is partly dilated, yet during a pain, the bag of waters does not protrude into or through the cervix. In this instance it is due to adhesions between the membranes and uterine wall, which should be separated by introducing the finger through the os and sweeping the first and two joints around the lower uterine segment.

The bag of waters should never be ruptured in primipara until it presents at the vulva, and in multipara until the cervix is fully dilated, then the rupture will shorten the labor.

Chairman's Report—State Medicine as Now Enforced and How it Should be.*

By Dr. W. F. Hargrove, Kinston, N. C.

Mr. President, Officers and Members of the Society:

About last February I received the transactions of the last meeting, and on examining them, found, to my surprise, that I was Chairman of a Section. I am sure that you, after hearing my paper, will be sorry that I found it out. When I am called to a case, I endeavor to make a diagnosis, if possible evade a prognosis, and for treatment try to correct the errors and give nature a chance to cure.

So in presenting my subject I have tried to state facts—so you can make a diagnosis. I have left out the prognosis. The treatment, after a few suggestions, is left with you and the State. The State to represent nature in this case.

Our State, through the officers and members of the State Medical Society and the Board of Health, has attempted to stamp out disease, and prevent imposition upon its citizens by the making of laws.

Now the State's duty can be briefly stated as follows:

1st. To prevent disease.
2nd. Care for its sick.
3rd. Prevent fraud.
4th. Pay the doctors.

Under the above divisions I will endeavor to show, in a brief way, how the State is looking after its people, and how it should do it; what I will say may sound harsh, but truth is never careful of how it upsets theories or on whose corns it treads.

My idea of what a doctor should be is expressed in "Beside the Bonny Brier bush," and the following verses from "Medical Rhymes":

In every phase of human life
From earliest breath to latest sigh,
'Mid hours of peace and scenes of strife,
When men are born, and when they die,
In cottage, palace, hovel, hall,
On silken couch, or stony ground,
Where sickness, pain, or death may call,
"The State's best citizen, the doctor's" found.

When others flee contagion's breath,
Forgetting earth's most sacred ties,
And safety seek from march of death,
'Mid healthier climes, 'neath coo er skies—
When others shrink from sight of woes,
And shut with horror from their gaze
The sights which only misery knows,
"The State's best citizen, the doctor," stays.

With open heart and cultured mind
In church or State, in field or mart,
In all good works his hand doth find,
He shrinks not from an active part,
With all who seek by word or deed
To help a brother man to rise,
Of every nation, every creed,
"The State's best citizen, the doctor," vies.

*Read before the North Carolina Medical Society at Charlotte, N. C.

The State, through its health officers, endeavors to enforce certain laws to prevent acute, infectious, and contagious diseases from becoming epidemic. It should go further and instruct the people on the evils of immorality, and the baneful effect of filth on the health. Especially the carrying of diseases by flies, mosquitoes, dust, polluted water, Hook Worms, etc. For example, there is no good reason known to me why my neighbor should make an incubator of his stables, to raise flies to contaminate my food with feces from near-by privies, into which has been dumped the excrements of typhoid patients.

I believe it has been pretty well settled that impure water and flies are the great carriers of typhoid, and both of these are within the power of the State to correct, but only through public opinion.

Our schools should teach the common laws of health, thereby raising the standard of living, then all will become producers. By the sweat of your brow shall you earn the right to live, but to properly sweat you must have health.

Enormous amounts are spent each year by people in search of that priceless gem, as is evidenced by the cure-alls that are exploited and swallowed by the gullible public without ever knowing the contents of the bottle, so the label says "it is harmless," and our State raises not a finger to stop this "wholesale slaughter of the innocent."

Springs and climate are lauded to the skies without much regard for truth. What can the poor sick man do? He probably is reaping wild oats sowed in his youth, or what was sowed for him by his parents. He wants help and here is where the State can do its best work, not for him, but for the children who will be his successors.

Teach them that there should not be a double standard of morality, as there now is, one for men and one for women; and that will settle the social evil. That cleanliness is Godliness and that drones or parasites have no place in North Carolina. That purity in its broadest sense, combined with work, is the greatest producer of health known.

An idle person is the devil's emissary. The sick, the lame and the blind will always be with us, until we have evoluted into the millennium, when health and happiness will be the heritage of all; and it is up to us to hasten that day through the medium of public opinion.

A sick man with a real or imaginary trouble will, like a drowning man, grab at a straw, and that straw is usually the suggestion of some friend or a newspaper patent medicine advertisement. Spend his money and his health and when bankrupt of purse

and a physical wreck, send for the doctor; should the doctor attend him he must expect his reward in the next world, but the unfortunate part of that kind of pay is that the doctor's creditors will not accept a check on that bank in payment for groceries. They want the coin.

A well man is or should be a producer, and that is the kind our State should foster and care for; prevent him, if possible, from getting sick. Our State provides for the demented, deaf, dumb and blind, as a rule non-producers; how much more should it be interested in establishing hospitals for the sick and other non-producers. The doctor should not be required to "bear this cross alone." It is the State's duty to provide for the health of its people, and when sickness enters a home, be it a palace or a hovel, to see that proper care is taken of the unfortunate, in a well equipped hospital, in order to quickly restore him to the productive class, and prevent the further spread of the cause of his sickness; thereby protecting the well in caring for the sick, without money and without price.

As matters now stand, for a price our State says to a recent graduate, if you pass the gauntlet of the State medical examiners, I will license you, and for the further fee of $5.00 per year I will allow you to work out the State's salvation from disease without pay; make out death certificates to bury your mistakes, blow your own horn, or get some one to do it for you.

That you shall not be required any more to study the science of healing, and that moss may grow upon your back until you awake in the great beyond and there face your accusers for their untimely demise. As the poor are always with us, you shall not be required to attend them; send them to a doctor that has not a paying practice, or give nature a chance to cure them. You are now a regular. In testimony whereof the Medical examiners attach their great seal and sign their names to the license in behalf of the State. Without any restriction.

The ethics of our Society says to them, "Sirs, unless patients are cured our way, it is rank heresy. It is unprofessional to teach people how to prevent diseases, for by their infirmities we have our wealth." "Great is Diana of the Ephesians." "Liberty, how many crimes are committed in thy name," and our State raises not one protest.

I am sorry to say that some of the brethren take the above literally, and after attending one or more meetings of the Medical Society, and that usually at extreme ends of the State, go home, hang out their shingle, and boast of their rapidly growing practice.

When with drugs they well have swilled him,
Tell his friends the fever killed him;
All that could be done was done;
The worst case they ever saw, but one;
And this is a mighty consolation,
In such an awful visitation.

To better illustrate what I mean I will give a few examples.

(1) Shortly after having studied anatomy I was commenting on the, to me, unfairness of an anatomy examination, to one question, Describe the cuboid. A doctor said I was very much mistaken, as it was a very important bone, that recently he attended a patient whose hand was caught in a gin and his cuboid cut to pieces, and he came very near losing his arm.

(2) Was in a physician's office when a patient came in to be treated for epithelioma. The Static machine was started, a Crooks tube excited and patient properly placed and Ray applied. In a few minutes I remarked that he did not protect the patient from the Ray. The doctor replied, "That is so," and taking a piece of blotting paper from his desk, cut a hole in it, and placed the paper on the patient, leaving the epithelioma exposed.

(3) In speaking to a doctor about a chronic relapsing pustular skin infection, on an exposed surface, he insisted that it was psoriasis.

(4) Another physician in speaking of the therapeutics of the ultra violet ray in skin affections, showed me his ultra violet outfit, which was an ordinary 16 candle-power lamp with a blue or violet colored globe with a reflector.

(5) Another physician when consulted as to the advisability of giving immunizing doses of diphtheria antitoxin to some children that had been exposed to diphtheria, advised against it, saying there was more danger in the antitoxin than in diphtheria.

Now these doctors are among the leading men in medicine in their respective communities and have large and remunerative practices. I know them to be men of sterling worth, and above the average if their respective patrons is any testimony.

To say these men are fakes would be doing an injustice. They are not required and have not studied the subjects. As there is no way for the public to know or judge such matters we have as a result the various kinds of healers, pathies and patent medicines.

Our Medical Journals, and I am sorry to say the one edited by our Honorable President is no exception (be it to the shame of the doctors) and secular press, are full of glaring medical advertisements in which truth would be a foreign body. Because it pays.

These nostrums would not be so extens-

ively advertised if they did not find purchasers. Read one of the advertisements in your local paper; you will see that in the majority of the cases your local druggist permits his name to be used as a guarantee of its worth. Now the druggist is an honorable man, perhaps an alderman or pillar in the church, or at least a good business man. He pushed them because it pays. When the poor in health asks him for help he delivers a bottle of cure-all for so much cash. None of his business if it is a poison, and he holds a license from his State to do it.

When a traveler is relieved of his purse by a highwayman, the people are up in arms and ready to punish without court or jury. How different is the situation when those who look after public health by exposing the frauds that rob the credulous sick! They have to fight the battle alone.

The public is prone to assume, without investigation, that the medical boards are prompted by professional spite and jealousy in such exposures. Nostrum venders and quacks "live principally by the murder of the innocents" through the medium of the press, and are continually advising the dear people about their liver and kidneys, etc.

Just how much lower in the scale of humanity a man can go than to prey on the fears of the people for a few dollars, I do not know. There may be something more despisable, but what is it?

Now to me, the State's duty is plain. Let no medicine be sold, or offered for sale, that does not give the amount of each ingredient in the bottle in plain English, and if one or more of them is an accepted narcotic or poison, then label it poison. Should the advertisement state things about the properties that are untrue confiscate and destroy the whole supply. Stop all fake advertisements and scare-heads sent out in various ways for the public to read.

As to the treatment of the doctors, they should be required to keep up with the advancements in medicine, and every few years be made to stand an examination on preventive medicine, diagnosis, prognosis, and treatment of disease found within our State.

This would require a graded system, and should doctors fail to keep up let the public know who they are, so they can protect themselves from these incompetents, or at least know that which they have the right to know, who are the low grade or incompetent men.

This can best be accomplished by making them State officials and salaried men, with proper authority to enforce hygienic laws. With one incentive only—prevent sickness.

As it now stands a doctor is virtually a parasite, makes his living by taxing the people for their infirmities.

A sick man is a non-producer and an expense to his family; and on top of this comes the doctor's bill at the very time he is least able to pay.

So long as the doctors have to collect money for services rendered during sickness, will the incentive to make money warp their judgment and will give best attention where pay is best.

Health being the heritage of all, the State's duty can be summarized as follows:

First. Prevent disease by teaching people the cause of disease, how spread and how prevented.

Second. Care for the sick by having properly equipped hospitals free to all.

Third. Prevent fraud by stopping fake advertisements, properly labeling all medicines, and hold the druggist responsible for all medicine sold by him.

Fourth. Pay the doctors. Have them examined and graded every few years, and this published for the benefit of the people.

Carcinoma of the Penis.*

By Thos. M. Green, M. D.

Carcinoma of the penis occurs, according to the various authorities, from one to three per cent. of all carcinoma in the male, and is the form of neoplasm most frequently met with in that organ. It is usually encountered after the fortieth year, most frequently between the fiftieth and seventieth years, although Freyer[1] reports a case in a youth of seventeen years. Kaufman[2] gives six per cent. in the third decade.

Etiology.—Like carcinoma elsewhere, it is frequently associated with chronic irritation, whether it be a scar at the side of an old ulcer, specific or otherwise, or long-standing phimosis, with accumulation of smegma and resulting balano-posthitis, or a traumatic scar. Of all the etiological factors, phymosis and venereal warts seem to be the most prolific. Kauffman[3] gives twenty-nine out of thirty-three cases associated with warts. Dermarguay[4] reports forty-two cases out of fifty-nine occurring from phimosis, and Keys claims that the circumcised Jew is exempt.

Pathology.—Kuttner describes three forms:

1st Form.—Papillary cauliflower; most frequently seen in the presence of phimosis. Beginning on the glands, or inner layer of the pepuce, growing rapidly and involving scrotum, pubic coverings and entire penile structure.

2nd Form.—Carcinomatous ulcer; less

*Read before the North Carolina Medical Society at Charlotte.

frequent, beginning on the glands or coronal sulcus, growing slowly at the local point, but manifest remotely, out of all proportion to the extent of local involvement.

3rd Form.—Non-papillary; rarest of all. Has no papillary arrangement, but rather resembles carcinoma of the breast. Very malignant.

The growth may invade all the penile structures, scrotum, pubic coverings, prostate, rectum, bladder and seminal vesicles, by direct invasion, although Kuttner has demonstrated that in the corpus cavernosum metastatic nodules may be found remote from the diseased area, with healthy tissue intervening, simulating metastasis of sarcoma. The corpora cavernosa seem to enjoy a great deal of resistance to direct invasion, while the corpus spongiosum and urethra are even more so. Metastatic extension is by the lymphatics, except in the corpora cavernosa, superficial penile lymphatics to the inguinal and femoral lymphatics: and deep penile lymphatics to the retro-peritoneal glands. The time of invasion varies; in some cases, early, and again, delayed out of all proportion to the extent of the local growth. The glandular extension shows often a tendency to be arrested at the inguinal and femoral lymphatics for sometime before extending to the retro-peritoneal glands. Early lymphatic involvement is generally the rule. Secondary pyogenic glandular infection may be seen late.

Symptoms.—Little or no pain is experienced until toward the end, when itching may or may not be present. Bleeding on manipulation and sloughing with characteristic epitheliomatous discharge is the rule. Death is due to exhaustion, whether it be from septicaemia, constant hemorrhage or cachexia.

Diagnosis.—Becoming manifest usually in the last decade of life, when the sexual life is practically spent, one would naturally suppose the recognition of it to be comparatively easy, and yet such is not always the case. It is to be recognized from venereal warts, chancroids, chancre or tuberculous ulcer. Careful attention to the history and examination will eliminate all of these except chancre. Here, except in doubtful cases, specific treatment should always be tried. In fact, it seems to me that the patient should be given the benefit of this doubt in all cases.

Prognosis.—Depends upon the extent of the lesion. Most authorities give a rather gloomy prognosis, especially when the lymphatics are involved. Some go so far as to discourage operation when there are extensive inguinal enlargements. Judging from the results recently demonstrated in Kelly's Clinic, where it was shown that about fifteen per cent. of uterine carcinoma with retro-peritoneal involvement were saved after careful removal of the pelvic lymphatics, together with the growth, it would seem to me that these patients should have an equally fair chance with a similar treatment, better of course, the earlier seen. The fact, too, that the metastasis by the lymphatics is often arrested for sometime at the inguinal and femoral glands, before extending into the abdomen, seems to add further hope. At best, however, any expression of prognosis should be guarded, certainly until one has seen the extent of the metastasis.

Treatment.—In the early stages, where no metastasis has taken place, treatment may be limited to thorough curettage or exposure to the X-ray. These growths, however, are seldom seen or recognized until there is lymphatic involvement. The question of how much of the organ should be amputated is often a difficult one to decide. Partial amputation should never be undertaken if the corpora cavernosa have been extensively invaded, since, as Kuttner has shown, nodules of cancerous tissue may be left in the stumps of these bodies, with certainty of local recurrence, as well as further mestastasis from these points. We are most usually confronted with the problem of complete extirpation, extensive dissection of both groins, and laparatomy, with removal of the retro-peritoneal glands. Most authorities advise leaving the testes when sure of no invasion, while others advise complete emasculation, chief among whom is Pantolini, [5] who claims better psychological results with total emasculation.

Report of Case —J. D., white, male, age 46, widower, bar-keeper, presented himself on January 2nd, 1906, with the following history: Family history, negative; past history, negative. Has always enjoyed good health, except from time to time has had attacks of malaria. Never had venereal warts or phimosis. Had gonorrhoea in 1895; cured. In 1896 had a chancre: was never thoroughly treated: followed by secondary symptoms, which were mild. Sixteen months ago he noticed a small nodule appearing on the site of the chancre, just behind the sulcus, which grew slowly and without discomfort. At the end of six months it had attained the size of a small marble, when it became ulcerated. Four months later he noticed slight inguinal enlargement. That was six months before he presented himself to me for treatment. From then until I saw him the growth increased in size rapidly, assuming more and more the characteristics of an epithelioma, with concomitant increase in the growth and extent of lymphatic involvement.

Physical Examination —Medium statue; fairly well developed; somewhat emaciated and cachectic; reflexes normal; chest and upper extremities negative; abdomen, ague-cake spleen, 5 cm below costal margin. Situated on the dorsum of the penis was a cauliflower growth, 10 cm in circumference, 4½ cm in diameter, involving the skin, pepuce, posterior half of the glands, coronal sulcus and corpora cavernosa to some extent. The corpus spongiosum and urethra were not involved, nor did careful palpitation of the testes, epidydimi and vas deferens, as far into the inguinal canal as the finger could reach, elicit any nodulations. The corpora cavernosa proximal to the growth were apparently free. The growth bled freely upon manipulation and emitted a foul-smelling discharge. The glands were enlarged in both groins, especially the right; freely movable; hard and not painful. The enlargements were confined chiefly to the inguinal chain, but clustered about the femoral opening; one very large gland on the left was situated at, and adherent to, the saphenous opening. Rectal examination, negative. Blood showed slight haemoglobinaemia: urine, negative.

Treatment.—Three weeks of vigorous treatment with mercury and iodides, previous to my seeing him: without effect. Refused to allow removal of portion of growth for microscopic examination. Operation under ether; time, three hours. Consisted of free removal of inguinal and femoral glands on both sides, with splitting of the external oblique tendon, in order that the cord could be followed to the internal ring. The penis was then extirpated by Gould's method, consisting of complete extirpation of corpora cavernosa and implantation of the urethra in the perineum at the lower angle of the wound. The stump of the corpus spongiosm was not dissected from the urethra, but the latter was left a little longer and split up, in order to prevent as much as possible a subsequent stricture at the muco-cutaneous junction. Great difficulty was experienced in dissecting the corpora cavernosa from the rami of the pubes and ischii, a procedure accompanied by free bleeding. A permanent catheter was used for five days. Testes were not removed.

It was my intention to further safe-guard the patient, by opening the abdomen and removing, if necessary, the retro-peritoneal glands at a second operation. He, however, refused further operative procedure.

Convalescence was uneventful. At the present time—about five months since the operation, he seems to be in perfect health, having gained fifteen pounds, and has returned to work. He seems perfectly contented with his condition: has no sexual desire, but has felt, at times, an itching sensation in the glans penis. So far I am unable to demonstrate any recurrence of the growth. I believe, however, that had he permitted me to carry out the entire plan of procedure I could offer him a more than fair hope of cure. The act of urinating is accomplished in a sitting posture, without difficulty.

Microscopically, the growth was carcinomatous, with papillary arrangement. The lymphatic glands from both groins showed metastases, as well as secondary pyogenic infection. No nodules of growth found in the cavenous body.

It occurred to me that the objectionable feature of hemorrhage during complete extirpation of the penis might be eliminated by ligating the internal pudic artery beneath the superficial layer of the triangular ligament, before attempting to dissect the crura of the penis from the rami of the pubes and ischii. One can scarcely avoid wounding these bodies in the usual procedure, an accident which will prove very annoying, and in some cases of serious import. In order to accomplish this the preliminary incision through the raphe of the scrotum down to the penile structures is performed as in the Gould method, with an extension of the incision above to encircle the penis, cutting through, at the same time, the suspensory ligament, and then ligating its dorsal vein. The incision below is continued down into the perineum to a point about on a level with the bulb of the corpus spongiosum—dividing the overlying tissues to clearly expose this structure. The two halves of the scrotum are now retracted and the superficial perineal coverings pushed away from the median line, so as to expose the crura of the penis on each side, resting on the rami of the pubes and ischii. The floor of the triangular space thus exposed is formed by the anterior layer of the triangular ligament, the base of the triangle by the lower edge of the triangular ligament with the crura of the penis forming its sides and converging above to form the apex. An incision through the triangular ligament at a point marked "X" in the diagram on a level with the bulb and just to the inner edge of the crura on either side will expose the internal pubic vessels at a point where they divide into their branches to supply the various elements of the penis. If one contemplates implanting the stump of the corpus spongiosum, surrounding the urethra in the lower angle of the wound, only such branches as supply the cavernous bodies and dorsal artery of the penis should be ligated, leaving intact the branch to the corpus spongiosum or artery of the bulb.

If the entire bulb is to be removed from about the urethra, then the vessel should be ligated before it splits up into its various branches. The remainder of the procedure is similar to Gould's method.

This method would render the procedure practically bloodless and would greatly facilitate a clean and thorough dissection.

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2 Keys Genito-Urinary Diseases.
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Resection of the Ovaries.—Zacharias (Zentbl. fur Gynak,) says that in three cases of benign tumors of the ovary the neoplasm was circumcised at its pedicle in such a manner that the tumor could be shelled out, leaving the outer covering in the pedicle. This thin shell of tissue was then sewed over in such a manner that the remaining stump (not having been ligated) had its circulation undisturbed. From sections of the same thinness removed from the exsected tumor it was found under the microscope that the shell thickness did not exceed 1 mm. It consisted of the germinal epithelium of the albuguinea and connective tissue stroma rich in cells. Follicles were not present, but occasionally the presence of small corpora albicantia was determined, which proved that the stump was the remains of the ovarian stroma.

The observations extended over a period varying between several months and a year. In all three patients there were few or no evidences of the artificial climacteric, and in all menstruation continued undisturbed.

Although the view prevails that menstruation without ovulation cannot occur, the writer thinks that our opinions on this subject may be erroneous. He thinks it quite possible that menstruation may depend on the presence of the germinal epithelium, as there was no possibility of the presence of Graafian follicles in the three cases reported. As there seemed to be an increase in the size of the stump in the course of time, he further ventures the opinion that possibly there was a regeneration of ovarian tissue going on. He thinks that if pregnancy does not set in at some future time in his cases, the theory of menstruation being dependent solely on the germinal epithelium will be quite plausible.

The Significance of Streptococci in Milk.—Heinemann's (The Jour. of Infect. Dis.) general conclusions are, shortly, as follows: The ordinary bacteria producing lactic acid fermentation are bacillus aerogenes var. lacticus and streptococcus lacticus. The latter agrees in morphologic, cultural and coagulative properties with pathogenic, fecal and sewage streptococci. It can be found in cow feces, on the external surface of cows and in milk of all stages of subsequent handling. Souring of milk is caused by the co-operation of both groups of bacteria and is, perhaps, favored by peptonized bacteria always present in market milk. Gas is produced by the aerogenes, but its development is checked by the growth of the streptococcus. Both of them produce acid; the aerogenes is more sensitive to a high acidity and is regularly overgrown by the streptococcus. Sterile milk can be made to produce acid fermentation by inoculation with streptococcus. The constant presence of streptococcus therefore in market milk and milk collected with special precautions will be a stimulus for further investigation in sanitary work.

Carcinoma of the Uterus.—Jessett (Med. Press) has operated on over 200 cases for carcinoma of the uterus with a mortality from operation of 10 deaths, but in the 73 cases only one patient died. Of 180 of these, which were performed over two years ago, very many have been lost sight of. Of the remainder 17 are still alive and well at periods varying from 12 years to three years, while 20 per cent. lived and kept free from recurrence for periods varying from two to five years.

When the case is one of uterine cancer he regards vaginal hysterectomy as the better operation, for the reason that shock to the system is not nearly so severe and patients make a much readier convalescence. Vaginal hysterectomy is also the better operation, for those cases in which the disease is limited to the os and vaginal portion of the uterus. When the disease has extended up the cervical canal, infiltrating the cervix and possibly infecting the cellular tissue, then the abdominal route or perhaps the combined abdomino-vaginal operation would be the wiser if not the only operation which would hold out any hope of success.

With the uterus fixed and the ureters and bladder possibly implicated the author is convinced that they are better left rigidly alone.

An English insurance company issues policies, protecting against financial losses due to appendicitis, at the rate of $1.25 a year for every $500. This policy guarantees to pay for medical and surgical treatment and nursing up to the face of the policy in force at the time of treatment.

Charlotte Medical Journal

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No. 36 South Tryon Street, - - - -

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THE ETIOLOGY OF TABES.

It is remarkable with what tenacity the profession holds to the syphilitic origin of tabes, it being rare to read an article in which it is not given as the principal etiologic factor of the disease. In the recent Lumleian lectures, David Ferrier presents the evolution of our knowledge of tabes, its nature and causes, in a very able manner, pointing out that the essential character of the tabetic process is a progressive dystrophy or demyelinisation and ultimate destruction of the nerve fibres, with secondary proliferation of the neuroglia, he classifies the three leading views regarding its pathogenesis (1) the primary ganglionic origin (2) the peripheral origin (v. Leyden and Goldschneider) (3) the meningetic origin (Nageotte, Redlich and Obersteiner) and concludes that "there is not one which is not open to several more or less serious objections" and considers that "the most probable pathogeny of the tabetic degeneration is the result of a toxin generated or conditioned by the syphilitic virus," basing his conclusions on the statistics of Erb and Hirschl, in his opinion "little room for doubt that tabes and general paralysis are in all cases of syphilitic origin, and that tabes *per se* is as much a proof of syphilis as gumma of the skin." Such a dogmatic statement in the face of the recent work of Ford Robertson on the diphtheroid bacillus which he has isolated from many cases of paresis, and which on inoculation into animals has produced paretic symptoms, work which has recently been confirmed by Dr. Saunders, of Cincinnati, seems to be based on insufficient grounds. The arguments against the syphilitic origin of the disease are in part (1) that the disease refuses to yield to syphilitic treatment (2) that many cases are on record in which no luetic infection could be shown (3) that such a very small proportion of syphilitics have tabes (4) the long interval between the date of the syphilitic infection and the development of tabetic symptoms (5) that the tabetic process, once begun, is essentially of a progressive character and postulates a more or less continuous generation of the poison (6) the lymphocytosis of the cerebrospinal fluid, which has also been found in meningitis, as well as in Landrys paralysis and herpes zoster.

Against the above six points the only one which has any force in favor of the luetic origin of tabes is the large percentage of cases which have a syphilitic history, this is in part accounted for by the bias of the statician, if only those cases were counted who gave a distinct history of an initial chancre the number would be very materially decreased, but when we read the statement that the patient "denies infection but admits exposure" we know at once that every effort has been made by the statician to prove his views, further in the incipient stages of both paresis and tabes both the sexual capacity and desire are very much increased, it being not uncommon to receive a history of remarkable excesses in venery over long periods before the development of any symptoms, increasing the liability to luetic infection. That tabes is the result of an elective poison is more than probable, similar degeneration having been produced by ergot, pellagra, lathyrism, the toxins of diphtheria and beri-beri and by certain cachectic conditions, e.g. diabetes, pernicious anaemia, etc. The selective action of infections under certain conditions upon the cord are seen in anterior poliomyelitis, which always occurs as a sequel to a period of high fever of shorter or longer duration, other neurosis are produced in the same manner, some of which are transient, some slowly progressive, others stationary and some remittent, consequently it seems probable that many of the diseases caused by nerve degeneration will ultimately prove to be the result of infection of the part either by a specific bacillus or by any localized infection: in some cases of epilepsy it has been suggested that the attacks are due to infection by a parasite which produces periodic attacks in the same manner as the plasmodia malariae.

DR. JAMES McKEE.

In a recent issue of one of the most prominent state papers, there was an attack made on Dr. Jas. McKee, Superintendent of the Central Insane Hospital, Raleigh, N. C., in which definite and hurtful charges were made.

Having confidence in Dr. McKee, in the executive committee in charge of the institution, and in Governor Glenn, the Charlotte Medical Journal awaited with expectant interest a complete exoneration of the management when the real facts were brought to light. And we did not have to wait long. The charges related to the mistreatment of one of the patients, and through him, of his relatives. They were:

First, of discourtesy to the relatives on the part of the management of the hospital; second, of misrepresentation, in that the relatives were informed that George E. Billings was in the institution and doing

well, whereas, as a matter of fact, he had escaped prior to that time; third, that the family were not notified of his escape; fourth, that his family were not notified of his death.

To these allegations, Mr. R. C. Lawrence, of Lumberton, makes direct denial, after a thorough investigation of the case. The charge of discourtesy was utterly without foundation, as the correspondence on file clearly shows. The second failed to be substantiated, though the mother of the unfortunate man was invited to come to the hospital and point out the employe that had made the alleged statement to her. As to the third, it has been the custom of the institution not to notify relatives of the escape of inmates, thus sparing them the anxiety of this knowledge, while every effort is being made for locating them. This rule, Governor Glenn advised to be abolished and, in future, relatives will be notified, though the experience of the management has shown it to be unwise.

In regard to the last, it seems that it was assumed that a murdered man found in his home county was the missing lunatic, when the evidence failed absolutely to justify this assumption.

Here the matter stands. The situation is a most delicate one, for the friends of those unfortunates who have to be protected by their commonwealth have a burden of sorrow in their condition, and are naturally sensitive and vitally interested in everything pertaining to their welfare; on the other hand, the men at the helms of the hospitals for the insane are men to be trusted; they are men to whom the State looks for the care of its most sorely afflicted children, and they are worthy of this confidence. Dr. Jas. McKee is a physician in the high, ethical sense of that word. He is gentle and symphathetic, with a clear brain, a kind heart and a steady hand—eminently fitted for the exceedingly difficult position he so worthily and faithfully fills.

COMPULSORY EMASCULATION.

It has been recognized from the earliest times that the testicles are connected with the normal development both mental and physical and that their absence whether congenital, by operation or by atrophy was followed by a definite perversion of development of the type known as feminism, they have ever been considered as the attribute and evidence of virility and their absence a disgrace, in some cases debarring the unfortunate from religious rights. As there is at present an agitation in favor of the emasculation of habitual criminals, epileptics, the insane and the feeble-minded, as a preventive to their transmitting their infirmities to future generations and thus to improve the general standard of the race, it is interesting to review our knowledge of the function of the testicle and to carry to its logical conclusions the doctrine advocated.

Such wholesale emasculation as would have to be practiced in order to carry out the elimination of the possibility of any persons affected with a disease which is considered to be transmissible by inheritance or to have pernicious effects upon the offspring renders the scheme impracticable, at least under present social conditions. In the first place the parents of every afflicted child would have to be operated upon in order to prevent their producing others, to which they would not unnaturally object. As one man in eight is said to have syphilis, one in five hundred epilepsy, one in two thousand mentally afflicted, as well as cases of alcoholism, tuberculosis and chronic diseases generally, all of which affect the offspring, it is possible that at least 25 per cent. of the population would come under the knife of the surgeon. If nature's laws for the survival of the fittest have to be interfered with in any such wholesale fashion it would be better to only allow a certain number of picked persons to propagate the race and to emasculate the remainder. It has to be remembered that all our efforts in sanitation and hygiene have tended to the survival of the unfit and it may be that some deterioration of the race standard has resulted.

Nature has no means of artificial selection she makes no selection of individuals or type, for about these she cares nothing.

> "Are God and nature then at strife?
> That nature lends such evil dreams
> So careful of the type she seems
> So careless of the single life:
> So careful of the type? but no
> From scarped cliff and quarried stone
> She cries, 'A thousand types are gone,
> I care for nothing, all shall go'."

Nature as a rule tries to make up in quantity when she fails in quality and the inferior quality soon cease to propagate and are rapidly eliminated in the struggle for existence.

There is also the question of the rights of the individual even if he be afflicted, and a menace to the public good, how far the right of the majority to dictate to the minority extends it is impossible to define, but compulsory mutilation is going very far; it is but a short step from advocating that persons should be forcibly operated upon for the benefit of the majority to arguing that they should be put to death to save the community the cost of the maintenance.

Since the theory of the continuity of the germ cell has become recognized our views

on heritance have become very modified, environment being the factor producing deviations from the normal type and consequently many diseases which have heretofore been looked upon as the result of a morphologic change in the germ cell from its somatic origin must now be regarded as due to environment. The average individual has about twenty ancestors whose medical history the advocates of inheritance take into consideration, viz: parents, grandparents, uncles, aunts, greatuncles and great-aunts, and it must be rare indeed to find a family in which syphilis, tuberculosis, alcoholism, epilepsy, insanity, feeble-mindedness or a neurosis does not exist, consequently statistics showing the number of normal persons with the so-called hereditary taint would be of great interest. Too much stress has been laid upon inheritance in the past as a factor in disease and has resulted in children being relegated to the incurable class without even an effort to aid them medicinally.

SOME FURTHER STUDIES ON THE LYMPHATIC SYSTEM AND TUBERCULOSIS.

During the past year more work concerning the method of infection, and the latency of tuberculosis has been published, in many ways corroborating the previous work of von Behring, Maragliano and Ravenel. Weichselbaum and Bartel (Weiner klinische Wochenschrift, 1005, several articles) showed that general lymphatic tuberculosis resulted when the bacilli were dropped into the mouth of animals, and that when the organisms were mixed with the food, mesenteric lymphatic tuberculosis was easily produced, the mucous membranes in neither case having been affected. That the lymph nodes contained tubercle bacilli, even in the absence of specific lesions, could be proven by injection into animals. This could be done on the 104th day after a single introduction of bacilli into the intestines. It seems that the latent period of this disease may be quite protracted.

In autopsy material from children, these authors were able to demonstrate the presence of living organisms in the abdominal lymphatics in the absence of specific histologic change. It therefore seems improbable that the infection atrium can always be fixed upon with certainty, since the bacilli could easily be transferred to another site, at which point the true histologic pathology might begin. For example, they have been found in the lymphatic tissue of the respiratory tract two weeks after they were intentionally introduced into the digestive tract.

It further appears from the work of the above named observers that the tubercle bacillus undergoes a loss of virulence while on its way to the lymphatic tissues, but that while there an increase in the pathogenic energy can be discovered experimentally; why they should remain latent when more virulent, does not seem clear; this latent period may be quite long.

One point which may lead to the detection of the infection atrium in tuberculosis is that the prominent feature of early lymphatic invasion presents itself as a stage of small round cell hyperplasia. This may be contemporaneous with typical tubercles in neighboring glands but usually indicates a primary invasion. The glands and the small round cells seem to play the part of a filter less than we formerly thought, since by injecting an animal having an artificial lymphocytosis with tubercule bacilli, the infection was delayed in appearance and decreased in severity. In the test-tube as well, the longevity of the organism was affected more by the lymphocytes than by the polymorphonuclears.

That the lymphatics of sucklings can be infected from the milk without injury to the mucous membranes, was proven by the finding of tuberculosis in the lymphatics of the intestinal tract, the wall itself being perfectly normal. The mother had been injected, not fed, after the birth of the young.

This work is extremely interesting and adds one more link to the chain of evidence in favor of an intestinal infection as against a respiratory infection. When one considers how much more easily a particle adhering to the oral, buccal, gingival or pharyngeal mucous membrane can be swallowed than inspired, even as far as the trachea, the former route seems certainly more probable. Undoubtedly, infection by one or other of the direct routes to the lung has occurred.

THE DRAINAGE OF THE FAUCIAL AND PHARYNGEAL TONSILS.

The interpretation of swellings in the neck resulting from infection in the nasal, pharyngeal or buccal cavities has always been one of the greatest importance. The value in knowing which gland is first involved as a result of the drainage of an infected area, lies in the fact that then we know how many barriers the infection has yet to pass to reach the general lymphatic system, by a direct route, or, in other words, how far it has spread.

The deep set of the cervical lymph glands, lying beneath the sternocleidomastoid muscle,—receives the greater part of the afferent lymph from the head and neck; that of the back of the head and pharynx drains into the posterior chain of these deep glands.

Therefore the involvement of this deep anterior set would indicate a centripetal

movement of an infection from anywhere but the back of the head or the pharynx.

The late works of Wood (Am. Jour. Med. So. Aug. '05, and April, '06) have shown very conclusively that the drainage of the faucial tonsil is not as usually supposed, into the posterior gland of the submaxillary group, but into one of the deep anterior set. This gland is located beneath the sternocleidomastoid where this muscle is crossed by the posterior belly of the digastric, lying in a pad of fat, easily movable backwards, and connected with the other deep anterior glands by a rich efferent anastomosis. Topographically this node is behind the angle of the jaw, whereas the submaxillary gland above mentioned is below the angle and cannot be moved backwards freely.

The pharyngeal tonsil according to Wood, drains into one of the upper glands of the posterior deep set, which set forms a long freely anastomosing chain along the posterior margin of the sternocleidomastoid finally terminating in the set above the clavicle.

This is also an improvement in our knowledge for we previously thought that the nasopharynx drained into the anterior set.

Since the anastomosis is greater between the radicals of each set than between the two sets as a whole it is reasonable to assume that an infection will spread along the chain to which the gland into which the infected lymph flow first came belongs. Therefore a chain of enlarged glands along the anterior margin of the posterior triangle of the neck would suggest the origin of the infection high in the pharynx or in the nasopharynx, while a faucial infection would affect the anterior chain first.

DR. H. W. LILLY.

After a long and painful illness Dr. H. W. Lilly, of Concord, N. C., died on the morning of the 12th inst. Dr. Lilly had reached the ripened age of 70 years and was a physician of the old-school. Concord had no finer citizen; he was beloved by all its people, and will be greatly missed. Patience and gentleness marked the long months of suffering that were met with a spirit that was brave and noble.

Few of us realize the pricking difficulties that follow in the track of a great disaster like that of the San Francisco earthquake-fire; leaving out thought of the money loss that came to all those engaged in the different lines of business, just the matter of getting adjusted, and getting the wheels oiled again, is a serious question.

Of the difficulties of journalism under the present conditions, The California State Journal of Medicine has this to say:

"Please don't ask for back numbers of the Journal, for there are none. Please don't ask for copies of the Constitution and By-Laws, or for back numbers of the Register of Physicians, or for programs, for there are none. In writing, please do not refer to any correspondence sent or received prior to April 18th, for all our correspondence is gone. If you wish to refer to anything in the way of correspondence prior to that date, please quote the letter or letters to which you refer. Please don't ask for sample copies until we have had time to dust off some of the ashes and find out just where we are. If you have written to us and do not get an answer by return mail, do not become enraged; be patient; about four sacks of mail accumulated before we had time to even begin to read the written word. Just a little thought along these lines will help us and will be appreciated. We ask the medical journals that receive this, please to publish a paragraph stating that we are trying to re-establish our mailing list and requesting all journals that formerly received our journal or should wish to exchange with us, please to indicate that fact by writing to us at 2210 Jackson Street, San Francisco."

The action of Denver, Colorado, in appointing a cleaning day is one that might be followed by all cities to their benefit from the stand-point of health and beauty.

Some of the hints in the Mayor's proclamation were as follows:

"If your store front, residence, or fence is dingy, order it repainted."

"If your awning is old, torn or faded, get a new one."

"Resolve never to throw papers in the street."

"Ask your milkmen, grocerymen and expressmen to have their wagons painted."

And the people responded by cleaning all the streets and alleys, painting all poles, placing refuse cans at all crossings and collecting rubbish and garbage from vacant lots; if all bill-boards can be done away with, (they can not be considered from an artistic standpoint), and each vacant lot made a temporary park, by sodding it and planting quick-growing vines and shrubs, much of the ugliness that wears the nerves of the working thousands could be changed into restfulness and beauty.

The friends of Dr. H. Q. Alexander will regret to hear of his continued and painful illness at his home in Mecklenburg county, N. C.

Dr. T. E. W. Brown has opened an office in Asheville, N. C., for practice that is limited to surgery and gynaecology.

The city of Darmstadt, Germany, has prepared a museum devoted entirely to tuberculosis which is intended to be carried to all the centers of population; during its exhibition a series of explanatory lectures will be given and it is hoped, in this way, to induce the public to pay more attention to sanitation and hygiene. By pictures the symptoms of tuberculosis will be shown in every form and also the means adopted by modern medical science to check the disease.

Dr. D. C. McIntyre, of Tabor, N. C., died on the 6th inst., of typhoid fever. Dr. McIntyre graduated in medicine two years ago; he was twenty-five years of age, and the future held much of promise for him in his chosen work.

Review of Southern Medical Literature.

Atlanta Journal Record of Medicine, June, 1906.

An Unusual Complication following Typhoid Fever, Report of Case.—Dr. J. E. Sommerfield reports a case which seems to have been apparently of a mild type. On the twentieth day of treatment the temperature returned to the normal and remained so for six days when a relapse occurred which lasted two weeks. Just about this time he complained of a dull pain in the region of the liver, but a careful examination showed no enlargement. In the course of four or five days the pain became more intense, the temperature was normal each morning, but rose to 103 degrees F. each night, followed by a profuse perspiration. Gradually an enlargement of the liver was noticed, with bulging of the intercostal spaces. Abscess of the liver was diagnosed. On aspiration pus was found. The pus was examined microscopically with negative results. Immediate operation was advised and on the following day an incision was made in the ninth intercostal space and a large quantity of pus evacuated. The cavity was not irrigated, but large drainage tubes inserted. For several days the patient was in a critical condition, then rallied and in a short time made a complete recovery.

The Georgia Practician, June, 1906.

Medical Ethics.—Dr. M. A. Clark under the title of specialists in this paper says, In all cases where there is a question of special treatment being indicated the patient should be encouraged to consult the family physician as to whether or not special treatment is needed and by whom it should be given. In the large majority of such cases the family physician's opinion will be of no little value to the specialist in his management of the case. Greater good will rebound to the patient if the specialist and physician work together.

In those cases where an operation is indicated the regular physician should be advised before an opinion is given to the patient, and only in very grave conditions should an operation be performed without advising with the family physician.

Because the physician is a specialist he is none the less excused from the same rules that apply to other physicians' prescribing for or taking charge of the patient of others and he should be equally as careful in the observance of these principles.

Virginia Medical Semi-Monthly, June 26th, 1906

Symptoms and Treatment of Urticaria.—Dr. T. W. Murrells says for convenience of treatment I divide urticaria into four classes, viz.: Acute reflex, acute toxic, chronic reflex, and chronic toxic.

Acute reflex. Here there is a sudden outbreak of urticaria without systemic disturbance. The patient seems in perfect health and may or may not give a history of previous attacks. Look at patient's tongue and other means of diagnosis and all is as should be. On questioning closely he may say that he chewed a piece of orange peel; swallowed a grape skin or something of that sort; and here is the source of the trouble. Acting as a mechanical irritant it causes reflexly an urticaria. This case should not be vomited, as it will set up further irritation, but prescribe something soothing to the gastric mucous membrane. Hydrocyanic acid diluted and later a saline to wash out the offending material. The acute toxic form is most often seen after the crab supper and ice cream festival and presents all the symptoms of an acute urticaria.

Chronic reflex.—This is the urticaria that accompanies Col. R. E. Morse and helps to pave the downward road after the Christmas holidays. There is no toxic absorption but a gastritis and the ordinary foods of life act as irritants. Treatment same as for gastritis.

Chronic toxic is that form sometimes called urticaria of autointoxication. In this class of cases we have to supervise the patient's life and diet in our effort to eliminate the poison and prevent its reformation. Always examine the stomach contents and look for dilitation. Cases of this sort have occurred in connection with hydatids of the liver. In these two latter conditions the surgeon's knife is the only remedy. The external treatment of urticaria is simple. The evaporating and astringent lotions will be found more serviceable than dusting powders. Carbolic acid as a lotion in various strengths is perhaps the most useful remedy.

New Orleans Medical and Surgical Journal, June, 1906.

The Early Diagnosis of Malignant Tumors with Special Reference to Cancers of the Breast, Uterus and Stomach.—Dr. A. A. Landey gives the following clinical points in relation to cancer of the breast and all external tumors:

Rapid growth is one of the main clinical features of malignancy and should of itself enable one to make a positive diagnosis. The rapidly enlarging nodule in the breast, the small papilloma of the lip which suddenly takes on a proliferating and ulcerating aspect, the bone tumor showing undue activity should all be viewed with suspicion, regardless of other signs and symptoms. It is true, however, that some types of epithelial carcinomas are at some stage of development of extremely slow growth. Tenderness, very marked inflammatory swelling and absent in malignant tumors is an important feature in differentiating the two affections.

The tendency, too, of malignant tumors to invade surrounding tissues and to recur after removal is another characteristic.

Pain is not characteristic of early cancer. It may be present and it may not. It is at times absent even in advanced cases. Besides pain may be severe in benign tumors. Adenoma of the breast is often much more painful than early cancer. Retraction of the nipple so often referred to as typical of cancer of the breast should not be looked on as a very important sign. It may or may not be present.

Redness, oedema of the skin, the development of nodules which run together producing a hard elevated patch eventually ulcerating, the involvement of lymphatic glands and the development of the characteristic cachexea are all late symptoms which should not be waited for before having recourse to radical treatment.

The Medical Recorder, June, 1906.

Painless Labor Surgical Operations Without Ether or Chloroform.—Dr. E. Lauphear says when labor has progressed to the stage when os uteri is well dilated and the pains are becoming distressingly severe a hypodermic injection of one quarter grain of morphine and one hundredth of a grain of the hypobromate of Hyocene may be given; in one hour the forceps may be applied and labor completed without any pain whatsoever even though the perineum be lacerated and sewed up.

There need be no hurry—perfect analgesia will last for hours. If the patient is not asleep at the expiration of the hour after injection a few drops of chloroform may be given by inhalation—a draw at most usually putting the patient into a profound sleep of some hours duration. There will be none of the nausea of prolonged ether or chloroform norcoses, no increased danger of past partum hemorrhage (as after chloroform) and no necessity for a skilled assistant to give the anesthesia. This is practically the same as the greatly lauded "morphine-scopolamine anesthesia" but the author desires to be safer.

The author uses this method in major operations such as vaginal hysto-rectomies. He says it must not be used in cases with serious heart lesion or in cases of albuminuria. The patient's hands must be tied above the head, lest a sudden movement contaminate the field of operation.

The Southern Practitioner, June, 1906.

Hemorrhages in and around Nerve Tissue.—Dr. H. Padgett gives three classes of causes of hemorrhage in these cases as follows:

1. Some force acting from without upon a healthy vessel thus causing rupture, and it is interesting to note how easily blood vessels break when a force is applied to the head externally and no fracture, and while we know we have concussion of nerve matter, yet the author believes that in many such cases classed as pure concussion that minute hemorrhages do not exist, but through his clinical experience and post mortem nerve work he is convinced that minute hemorrhages often exist in cases classed purely as concussion.

2. Arterial pressure acting upon a blood vessel that has undergone some histologic change and this condition is most common.

3. Those blood changes in infectious and other diseases in which the vessel allows the blood to pass through this is very common in leukemia and purpura.

The result of hemorrhages in nerve matter is one of breaking up, tearing, interfering with local nutrition and softening and formation of scars and cysts. If the patient survives the blood undergoes a chemical and physical change, restoration of tissue and function in many cases, and the only evidence of a past hemorrhage may be a little pigment. The spinal cord and vertebral canal are subject to the same kind of influences as the brain mass, possibly with the exception that in those infectious diseases and blood conditions that often give hemorrhages in the brain and retina not quite as common in the cord.

Maryland Medical Journal, June, 1906.

The Production of Clean Milk as a Practical Proposition.—Dr. S. C. Prescott after giving a complete outline of this subject says that he believes that a satisfactory

clean milk supply is possible and practicable if the following suggestions can be put in force.

1. An intelligent, sympathetic, but rigid inspection or supervision of the farms, excluding milk from all those sources where the farmer is not inclined to do what he can to fulfill cleanly conditions.

2. Dissemination of information to the farmer of needful points as to the care and handling of the milk at the farm, and in fact to all those who have to do with the handling of the milk before it reaches the hands of the consumer.

3. Proper regulations and inspection of the handling, transportation, etc., with perhaps an ordinance as in force in Boston setting up a bacteriological standard for saleable milk.

4. A higher selling price to the farmers in return for the extra care in the production of clean milk.

Nashville Journal of Medicine and Surgery, June, 1906.

Synovitis.—Dr. J. W. Brandan believes that the constitutional symptoms of dry synovitis are usually more marked, though they are not in proportion to the local inflammation and pain—the latter being the most important symptom. Care should be taken in examination, as the point is intensely sensitive to pressure. The general health, as a rule, suffers but little. There is more or less thickening of the tissues around the point. The swelling being hard, elastic, and leathery, but not fluctuating, as there is little or no effusion into the joint. The edge of this thickening is abrupt, a more or less elevated ridge being felt as the hand is passed up and down the limit.

If after a few days or weeks the temperature suddenly rises to 102 or 103 degrees, especially if the rise be preceded by a rigor, it is probable that suppuration within the joint has taken place.

The muscles of the thigh quickly atrophy in this form of synovitis, and when suppuration occurs very rapid destruction of the joint may result.

In the treatment of this affection the general condition of the patient, hereditary and acquired tendencies should be carefully studied and such constitutional treatment given as needed.

The Texas Medical News, June, 1906.

Rectal Feeding—Dr. T. J. Bennett gives the following as the indications for rectal feeding:

1. Any temporary obstruction to the entrance of food into the stomach, such as swellings about the throat, growths, foreign bodies, etc.

2. Paralysis from diphtheria, delirium, coma or conditions of the insane in which refusal to take food is persistent.

3. Gastritis, gastric ulcers, cancer or any kind of obstruction at the cardiac or pyloric ends of the stomach or along the alimentary canal above the rectum.

4. Reflex vomiting when unduly prolonged, such as from sea-sickness or pregnancy.

5. Conditions of exhaustion from wasting diseases where defective absorption and extreme anorexia are persistent as supplemental to stomach feeding.

6. Any surgical operations upon the stomach and upper alimentary tract. After discussing the kinds and the manner of preparation of the nutritive enema he emphasizes the fact that whatever enema is given it should be placed into or above the sigmoid flexure. Physiologists teach that the absorbents are more active in that portion of the bowel, and besides the nutriment material is conveyed direct to the liver through the portal circulation, whereas the hemorrhoidal veins empty into the vena cava, the less desirable of the two routes.

The Alabama Medical and Surgical Journal, June, 1906.

Retro-displacement of the Uterus with Report of Operative Cases.—By Dr. E. M. Prince, Birmingham, Ala.

The Virginia Medical Semi-Monthly, June 8th, 1906.

Early Diagnosis and Management of Pulmonary Tuberculosis.—Dr. R. J. Kline says the pulse is a most valuable aid in the early diagnosis of this disease. It is always accelerated and very frequently lowered in tension. While there are other and numerous causes that result in the elevation of temperature, still a certain kind of temperature continous in character more marked in evenings and remittent—to say the least it is very suspicious. Percussion. Slight dullness detected either above or below the clavicle should cause suspicion, especially if certain clinical symptoms are associated with it, but may have dullness over thickened pleura or a recent pneumonia. The supra spinous and intra scapular regions should be carefully percussed and even slight dullness is often significant. Auscultation, if there is any change in the rythm between inspiration and expiration or if inspiration is short and jerky—cog-wheel—and the expiratory sound is prolonged and high-pitched at the same time there is something vitally wrong which demands immediate attention. A slight spitting of blood may not always be a forerunner of tuberculosis, yet it occurs often enough to be of value as

indicative of the disease. The tuberculin test if employed will show the character of the trouble, even before the bacillus has made its appearance in the sputum. This is followed by a very interesting account of the management of tuberculosis.

Southern Medicine and Surgery, June, 1906.

Cystoscopy.—Dr. P. Bromberg says that he scarcely deems it necessary to mention the advantages of cystoscopic catheterization of the ureters over other methods, such as segregation, compression of the ureters, etc., quotes Dr. Van Der Poel, who says:

"1. The cystoscope is more easy of introduction than are the seperators or segregators, is less painful during the bladder manipulations, and much less so during the collection of urines.

2. With urethral catheterism we can collect the urine during as long a time as may be thought necessary, the patient not requiring any supervision.

3. A cystoscopic examination of the bladder can be made at the same time, which in some cases is useful, in others indispensible.

4. We are much more certain of the exact results, especially when the two urines are of similar character, whether clear, bloody or purulent.

5. It is the only method by which we are fairly certain that there is no bladder contamination."

It is contraindicated in acute cystitis, unless the patient be anaesthetised. Preliminary treatment will soon enable one to use the instrument if indicated.

The unskillful use of the instrument in tubercular cystitis often aggravates the condition. Large non-operative tumors are only made to bleed, and no advantages are derived from its use. It can be of no advantage in cases of cancer of the prostate.

Gaillard's Southern Medicine, July, 1906.

Gonorrhoea and Marriage.—Dr. G. M. Blech believes that the answer to the question as to when a gonorrhoeic may marry without fear of infecting his partner is a serious one and not easily answered. The greatest authorities on genito-urinary surgery have different views. It is sad indeed to note that after a patient had had his urine, artificially produced urethral discharge and semen examined with the microscope with negative results—and this even repeatedly—he can at best be declared only probably safe. We have in the literature records of cases in which the most minute examination gave negative results and yet infection of a hitherto healthy wife took place. The following method of examination is routine with the writer.

1. Examination of the gonorrhoeal shreds found in the morning and afternoon urine, immediately after voiding same in the office, for pus cells and gonococci.

2. Urethroscopic examination of the anterior and posterior urethra.

3. Dilitation of the urethral canal; introduction of a bougie, a boule and irritation of the urethra with a strong solution of nitrate of silver. Examination of the obtained discharge under the microscope.

4. Microscopic examination of the semen for pus cells and gonococci.

If no leucocytes and gonococci are found the entire procedure is repeated in five days, a negative result of which repeated examination justifies the author in offering no objection to marriage with the caution, however, of warning the patient that infection may occur, and to at once consult a competent surgeon should symptoms pointing to an infection occur.

Specialists resort to further test of attempting to cultivate the gonococci in suitable media.

Atlanta Journal Record of Medicine, July, 1906.

Diagnosis and Treatment of Pulmonary Tuberculosis.—Dr. H. F. Harris says under the section on treatment that treatment of tuberculosis on modern lines is marvelously simple; briefly stated it consists in putting the patient practically out of doors night and day in rest as long as the disease is active, and supplying a sufficient quantity of good wholesome food. When treated in this way patients improve in an incredible degree in a very short period of time, and where the disease is truly incipient six months to a year suffices for complete cure in a large number of instances.

In a recent visit made to the great sanatoria of the North he was astounded to see the wonderful effects produced by this treatment. That we have in Georgia a large number of places where tuberculosis can be successfully treated there can be no question. For the majority of patients an altitude of from 1500 to 2500 feet is to be preferred, and fortunately we have a number of such places within our State which are easily accessible. At the instance of Dr. L. G. Hardman the legislature at its last session passed an act ordering an investigation as to the feasibility of erecting a State sanitorium for the treatment of tuberculosis. This, the author feels certain, will be heartily endorsed by the members of the State association.

The Southern Clinic, July, 1906.

A New Consumption Blotter.—By Dr. G. B. H. Swayze.

Virginia Medical Semi Monthly, July 12, 1906.

Principles of Surgery—Lecture XX—Syphilis.—Dr. Stewart McGuire says for a long time it was thought that every product eliminating from an infected person, such as tears, sweat, saliva, and even the breath was capable of transmitting syphilis. It is now known that the disease is transmissable only through the products of the primary and secondary lesions and the circulating blood. The presence of the spirocheta pallida in only these lesions and in the blood in only these stages strengthens the belief of its specific relation to the disease. The physiological secretions from the special glands, such as the salivary, milk and sweat glands, the normal kidney and testicle, unless contaminated by admixture with a discharge from a primary or secondary lesion or by blood or lymph, will not convey the disease, even during the mostactive stage of the disease. This is easily accounted for when it is borne in mind that the special products from these glands are the result of elaboration within their epithelial elements and that these cells select from the blood the proximate principles necessary for their work. The essential cause of syphilis does not penetrate intact epithelium.

Sparmatozoa and ova are not products of secretion, but active, living, organic structure. Each of these elements is capable, therefore, of grafting disease on the other.

The Southern Practitioner, July, 1096.

The Proper Care of Pregnancy.—Dr. I. C. Smith regards the therapeutic nihilism now so widely prevalent, even in many places of high pretensions—and which is founded in ignorance—we are often dogmatically informed that owing to the fact that pregnancy being a physiological process that drug remedies can be of no special benefit to improve the disturbances of health resulting from the conditions of pregnancy.

The main reason why the health of pregnant women has been so long and so widely and brutally neglected was because woman as a sex for countless ages existed in a state of ignorant slavery. The time, labor and expense involved in improving the health of the pregnant woman will find an abundant reward in the greatly improved mental and physical condition and vital stamina of the human race. Hereby the best features of an upward evolution will be greatly promoted, for the physical powers being improved and strengthened the mental endowments are increased and elevated, and thus the coming race becomes superior to their predecessors and the world of mankind is thereby greatly improved.

The Medical Recorder, July, 1906.

The Static and Constant Currents Rational Therapeutic Agents.—Dr. S. C. Barrow believes that neurasthenia of cerebral, spinal, gastric, or any organ yields promptly when the function of these organs is restored, and as a regulator of function there is no remedy which equals the static current. In tabes when applied in the early stages the pathological changes in the cord are checked and the distressing train of symptoms which usually follow are not seen. In the paralysis following the acute myelitis of children nothing restores the affected muscles to normal more constantly than the static current.

The functional forms of insanity are benefited by the static current when the treatment is directed at the cause, which is usually located in some organ doing defective work. In organic torpor due to a local stasis constipation, impotency, and other like conditions in which the muscular tissue in the organs is in an atonic state the static current is of rational use. In the constitutional diseases due to faulty metabolism, such as rheumatism, gout, etc., static electricity is our best aid. Applied to an acutely congested or inflamed organ we see stasis overcome pain, and swelling disappear, muscular tone developed and normal function resulting, whether it be an acute prostatitis, a vesiculitis, a gleety urethritis, a tonsilitis, or an acute non-specific inflammation at any site. In the painful neuroses, such as sciatica and neuralgia the static current in conjunction with the constant or induced is most effective. The brush and vacuum tube discharges, through their antiseptic and mechanical properties, are especially serviceable in dermatology.

The Virginia Medical Semi Monthly, July 27th, 1906.

Salt Action and Salt Solution.—Dr. A. L. Muirhead points out clearly the therapeutic indication and action of salt solution and concludes by saying that these salts perform most important functions, maintaining normal osmotic conditions and controlling the flow of water to and from the tissues. They also constitute an essential part of the composition of living matter, being in some way bound up in the structure of living molecules and necessary to their normal action. In any disease with high temperature the loss of the body's chief salt—sodium chloride (which amounts to about one-half ounce in twenty-four hours)—is not replaced, owing to loss of appetite, restricted diet, and many other factors, and the time soon comes when the cells are hampered in their vital functions and gradually fail to secrete their protective

anti-bodies, thus giving free sway to pathogenic substances.

Nature, wise in all her acts, tries to prevent this, and at a certain point the excretion of sodium chloride by the urine ceases. This may avail, or in spite of nature's efforts the patient gradually sinks, the vital functions being more and more hampered until life ceases. To avoid this we are advised to use saline solutions, not when the case has reached the danger limit, but from the beginning. Keep the body in febrile cases well supplied with its necessary salts, the greatest of which is sodium chloride.

Texas Medical Journal, July, 1906.

The Importance of Some Symptoms of Uterine Fibroids with Report of Cases.—Dr. F. L. Barnes desires to call attention to the apparent disproportion which we sometimes find between the size of the tumors and the severity of the symptoms, and also to emphasize the fact that these symptoms are probably more often due to adhesion than to the tumor *per se*. After giving an account of cases which illustrate these points he says he is impressed with the idea that these cases of small fibroids would probably not have given any trouble for a long time had there been no surrounding adhesions, and that the time when they cause the most trouble is just at the time when they are about to be converted from pelvic into pelvo-abdominal tumors. If they are not bound down by adhesions or blocked by irregular formatians at this time they will come up into the abdomen like a normally pregnant uterus and the patient will experience considerable relief from pelvic pressure and pain. On the contrary if they can not make a smooth entry into the abdomen the patient will suffer exacerbation of all symptoms and probably some new complications.

Nashville Journal of Medicine and Surgery, July, 1906.

A Plea for Plastic Surgery in Gynaecology.—By Dr. C. A. Robertson, Nashville, Tenn.

New Orleans Medical and Surgical Journal, July, 1906.

Mechanical Treatment of Fracture of the Patella.—By Dr. J. D. Bloom, New Orleans.

From the South comes this veracious story, as told by a writer in the Atlanta Record of Medicine:

"Did you hear about Isaacs? He vas bad sick, and they took his appendix away from him."

"Vy didn't he put it in his vife's name?"

Book Notices.

WALTER REED AND YELLOW FEVER. By Howard H. Kelly, Professor of Gynæcology, Johns Hopkins University. Two hundred and ninety pages. New York. McClure, Phillips & Co. 1906.

This interesting book is a memorial from a great physician to a great physician.

"When nature has work to be done she creates a genius to do it."

Major Reed was born in Virginia, graduating at its University, and at Bellevue Hospital Medical School.

In 1890 he was sent to Baltimore, as attending surgeon and examiner of recruits; while there he made a specialty of bacteriology and pathology, fitting himself for the work that will be associated with his name forever,—the conquering of the yellow plague.

Chapter IV treats of the history of yellow fever; chapter V of insects and diseases; chapters VI and VII of the work of the United States Army Commission; VIII of the application of the mosquito theory and IX of the value of Major Reed's work to the world.

On the monument that marks his grave in Arlington is the simple sentence;

"He gave to man control over that dreadful scourge, Yellow Fever."

A COMPEND OF MATERIA MEDICA, THERAPEUTICS AND PRESCRIPTION WRITING. Samuel O. L. Potter, M. D., M. R. C. P., London.

The text of this the seventh edition has been thoroughly revised and brought into conformity with the eighth revision of the U. S. Pharmacopœia. Twelve new articles and forty-three new paragraphs on important drugs have been inserted, and sixteen articles have been re-written. Material considered obsolete, or comparatively unimportant, has been removed; but the insertion of so much new matter, and the adoption of a wider-faced type, have added thirty-seven pages to the book.

The new articles are those on Animal Extracts, Boric Acid, Ethyl Chloride, Formaldehyde, Methylene Blue, Musk, Oxygen, Senega, Sera, Sumbul, Uric Acid Eliminants, and Urinary Sedatives. The new paragraphs include those on Acetozone, Argyrol, Aspirin, Chloretone, Citarin, Cotarnine, Dionin, Diuretin, Ergone, Eucaine, Euchinin, Gambir, Glycerin, Heroin, Hexamethylenamine, Lactophenin, Orexin, Peronin, Piperidin, Protargol, Sabal, Scopola, Stovaine, Theocin, Thymol Iodide, Veronal, and seventeen others.

CLINICAL DIAGNOSIS. Charles Phillips Emmerson, A. B., M. D., Resident Phy-

sician the Johns Hopkins Hospital and Associate in Medicine at Johns Hopkins University. The J. B. Lippincott Company. Philadelphia and London.

This book, which is dedicated to Dr. Wm. Osler, is based on the author's experience at the Johns Hopkins institutions in Baltimore and the clinical records of the same during the past seventeen years. Large space is given to examinations of the sputum, the urine, the stomach contents, the intestinal contents, the blood and various body fluids.

The book is meant especially for young practitioners, who will find a small laboratory their most valuable stock-in-trade.

CHILDHOOD; Mrs. Theodore W. Birney, with an introduction by G. Stanley Hall, Ph. D., LL. D., author of "Adolescence," etc. Postpaid, $1.10. Frederick A. Stokes Company, New York.

The author of this book comes to her subject with an authority based on wide and thoughtful experience. As the founder and promoter of the National Congress of Mothers, and for many years its president, she has wielded an influence second to none in that important organization.

Her dominant impulse is to bring parents and children into closer and more sympathetic relations. She believes that discord in the home is in most cases due to a lack of comprehension of child nature and its needs.

She claims there is abundant parental, self-sacrificing love, but that it must be supplemented by real knowledge of the child's mental, moral, and physical nature. Through simple practical illustrations of every-day occurrences the author endeavors to make clear to parents the importance of being able to grasp the boy's or the girl's point of view, for only by so doing can they hope to gain the confidence of children and to guide them wisely.

The illustrative cases are such as can be applied with great advantage to the trying conditions existing in many households.

THE PROPHYLAXIS AND TREATMENT OF INTERNAL DISEASES: F. Forchheimer, Professor of Theory and Practice of Medicine, Medical College of Ohio, Department of Medicine, the University of Cincinnati, etc. D. Appleton and Company, New York.

The methods advocated are such as can be carried out in private practice. Much space is devoted to hydrotherapy, gymnastics, exercises and diet, while surgical methods are treated from the point of view of the physician, leaving out largely the technique of diseases. In tropical diseases the author has not had personal experience and in these chapters he has compiled from the most reliable sources.

The treatment of internal disease is an art, and cannot be reduced to exact science; all advance is marked by relief from human suffering and the saving of human life.

IF YOUTH BUT KNEW. By Agnes and Egerton Castle. The Macmillan Company, New York City. Cloth, $1.50.

A genuine love story of the Napoleonic period, centering in the rule of Jerome in Westphalia; "through the mazes of this carnival, unique in the lenten gravity of nations, wander the footsteps of the singer of youth."

It is a tale of love and of wanderlust, woven out of a keen insight of human nature, and there is not a dull page in it. It is a delightful book for the evening lamp or the autumn vacation. In it we hear the music of young love; we see the beauty of the world and taste the fragrance of adventure.

CONISTON. By Winston Churchill. Cloth, 543 pp. Price, $1.50. The Macmillan Company, New York.

The story is laid in New Hampshire and the chief character is a well-remembered political figure in the State's history. The interest in the novel as a political treatise is heightened by the fact that the author has, since its completion, entered into active politics as a candidate for office. It is a novel with an earnest and worthy purpose, through which a tender love story runs like the red thread through English cordage. The people are real because their creator is a master. He shows that the need of the political hour is that each American citizen make good to the world those principles upon which his government was built and "regain the true axis established for us by the founders of the republic."

"THE BATTLES OF LABOR: Being the William Levi Bull Lectures for the Year 1906." By Carroll D. Wright, Ph.D., LL.D., Former United States Commissioner of Labor, President of Clark College and author of "Industrial Evolution of the United States," "Outline of Practical Sociology," etc. $1.00 net. George W. Jacobs & Co., Philadelphia.

Here are four lectures delivered before the Philadelphia Divinity School. Dr. Wright goes back to the exodus which he calls the first great strike having an economic origin.

Then he outlines labor troubles in the early and mediaeval days, coming up to the great modern battles between labor and

capital. The cure that he points out is increasing intelligence and the application of the spirit of Christ to business methods. Men should meet men in a simple, moral Christian way; then a new political economy will come into existence that looks to the "care and culture of men."

A NARRATIVE OF MEDICINE IN AMERICA. James Gregory Mumford, M. D., Surgeon to the out patients at the Massachusetts General Hospital, and a teacher in the Harvard Medical School. Cloth, $3.00. 488 pages. The J. B. Lippincott Company, Philadelphia.

This book is a narrative of medicine and conspicuous American physicians of each era, telling the story of their lives and their doings, showing to laymen as well as physicians something of the meaning of medicine and the life of its votaries.

Of the doctors and their story, few know or seem to care. Even the professional offspring of the physician tell you it is only the science of today which counts, as though we could divorce ourselves from the past, as though we could understand truly our present or make progress without the knowledge of that past. In the development of the theme it has seemed best for reasons that must appear sufficiently obvious, not to bring the narrative down to the present time. It stops practically at 1860, or about the middle of the last century, certain fugitive chapters being added on Ether, the American Medical Association, and some Modern Tendencies.

CONTENTS.

The Seventeenth Century.—Colonial Medicine.
The Eighteenth Century.—Colonial Medicine.
The Eighteenth Century.—Colonial Medicine.
(Continued).
The Eighteenth Century.—Colonial Medicine.

INTRODUCTION TO CHAPTER V.

The Eighteenth Century.—The Revolution.
The Eighteenth Century.—Benjamin Rush.
The Eighteenth Century.—Elihu Hubbard Smith.
The Eighteenth Century.—After the Revolution.
The Nineteenth Century.—Early Surgeons (Physick, McDowell).
The Nineteenth Century.—Early Surgeons (Mott, J. C. Warren, Dudley).
The Nineteenth Century.—Some Early Physicians and their Problems (Hosack, Smith, J. Bigelow).
The Nineteenth Century.—Chapman, Francis, Gibson, Jackson.
The Nineteenth Century.—Daniel Drake and the Western Schools.
The Nineteenth Century.—Ether, 1846.
The Nineteenth Century.—Founding of the American Medical Association, 1847.
The Nineteenth Century.—Notable Names of Fifty Years.
The Nineteenth Century.—Some Tendencies in Modern Medicine.

A NON-SURGICAL TREATISE ON DISEASES OF THE PROSTATE GLAND AND ADNEXA. By George Whitfield Overall, A. B., M. D., Chicago. The Rowe Publishing Co.

This book is now in its third edition and it is intended to aid the general practitioner in the treatment of chronic diseases of the urethra, and the reckless use of the knife is deplored. It has grown out of the careful observations of a quarter of a century. The little treatise is worthy of careful study and application of its teachings.

Messrs. W. B. Saunders Company announce for publication in the early fall the following practical works:

Keen's Surgery: Its Principles and Practice (Volume I); Sobotta and McMurrich's Human Anatomy (Volume III); Webster's Text-Book of Gynecology; Hill's Histology and Organography; McConnell's Pathology; Morrow's Immediate Care of the Injured; Stevenson's Photoscopy (Retinoscopy and Skiascopy); Preiswerk and Warren's Atlas of Dentistry; Goepp's State Board Questions and Answers; Lusk's Elements of Nutrition.

The most notable announcement is the new work on Surgery, edited by Dr. W. W. Keen, complete in five octavo volumes, and containing over 1500 original illustrations. The entire work is written by the leaders of modern surgery—men whose names are inseparably associated with the subjects upon which they have written. Without question, Keen's Surgery will represent the best surgical practice of today.

Abstracts of the Leading Articles of the Month.

Torticollis—Wry-Neck.—Tubby (British Medical Journal) says that there are two chief varieties, the true and the false. The true form is of two types, the fixed,—the wry-neck of childhood, or the congenital form,—and the reflex, the spasmodic and the acute forms. The author states that acute wry-neck is an acute rheumatism of the neck, which is amenable in most cases to medicinal treatment, but in a minority may be the beginning of the spasmodic form. The spasmodic form may be reflex, due to irritation. The usual cases have enlarged glands, from carious teeth or other

The usual combination of impoverished blood, nervous exhaustion, lack of digestive vigor yields most quickly to

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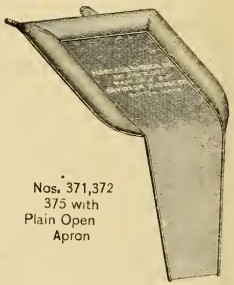

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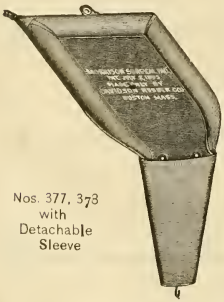

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with
Detachable
Sleeve

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No. 372 " " 24 "	" 24 in
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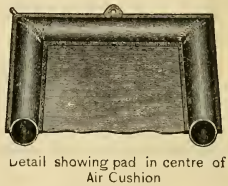
Cushion	Sleeve
WITH DETACHABLE SLEEVE	
No. 377 Tan, outside 20 in	length 20 in.
No. 378 " " 24 "	" 20 "



Detail showing pad in centre of Air Cushion

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TABLE OF CONTENTS FOR SEPTEMBER, 1906.

Original Communications.

A Difficult Craniotomy, by Dr. L. C. Keerans, Charlotte, N. C., ... 118
Asphyxia Neanatorum, by Dr. Chas. J. Sawyer, Salisbury, N. C., ... 113
Are we Doing our Duty in Trying to Prevent the Spread of Venereal Disease, by Dr. J. H. Marsh, Fayetteville, N. C., ... 122
An Unusual Case of Ectopic Gestation, by Charles Z. Candler, M. D., Dillsboro, N. C., ... 125
Carcinoma of the Penis, by Thos. M. Green, M. D., .. 147
Chairman's Report—State Medicine as now Enforced and how it Should be, by Dr. W. F. Hargrove, Kinston, N. C., ... 145
Chorea Gravidarum, with Report of a Case, by Dr. J. M. Templeton, Cary, N. C., ... 142
Forceps in Labor, by Dr. L. D. Wharton, Smithfield, N. C., ... 115
Management of the First Stage of Labor, by H. McKee Tucker, M. D., 143
Mitral Insufficiency: Symptoms and Treatment, by Dr. O. L. Ray, Raleigh, N. C., R. F. D., ... 134
Notes on Puerperal Eclampsia, by Dr. W. C. Folger, Dobson, N. C., ... 126
Personal Experiences in the Treatment of Pulmonary Tuberculosis, by Edwin Gladmon, M. D., Southern Pines, N. C., ... 127
Perineal Lacerations—Prevention and Treatment, by W. F. Mitchell, M. D., Shelby, N. C., ... 140
Some Views on Curettment of the Uterus, by Dr. M. A. Royall, Yadkinville, N. C., ... 138
The Physician and His Relation to Tuberculosis as a Social Problem, by Dr. T. A. Mann, Durham, N. C., ... 123
Treatment of Typhoid Fever, by Dr. J. M. Matthews, Mt. Pleasant, N. C., ... 130
The Open Gauze Method of Administering Anaesthetics, by William Moncure, M. D., 507-8 Tucker Building, Raleigh, N. C., 131
Treatment of Pneumonia, by Lloyd P. Russell, Fletcher, N. C. 133
The Use of the Microscope in General Practice, by Everett A. Lockett, M. D., Winston-Salem, N. C., ... 137
Treatment of Teething, by J. Steven Brown, M. D., Greystone Retreat, Hendersonville, N. C., ... 113
Tuberculosis of the Hip Joint, by E. C. McEachern, M. D., Cordova, N. C. 116
Where The Tides Meet, by H. S. Lott, M. D., Winston-Salem, N. C., ... 120

Editorial.

Compulsory Emasculation, 152
Dr. James McKee, ... 151
Dr. H. W. Lilly. 154
The Etiology of Tabes, ... 151
Some Further Studies on the Lymphatic System and Tuberculosis. 153
The Drainage of the Faucial and Pharyngeal Tonsils . 153

Review of Southern Medical Literature 155

Book Notices.

A Compend of Materia Medica, Therapeutics and Prescription Writing, by Samuel O. L. Potter, M. D., M. R. C. P. 160
A Narrative in Medicine in America, by James Gregory Mumford, M. D. ... 162
A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa, by George Whitfield Overall, A. B., M. D. 162
Clinical Diagnosis by Chas. Phillips Emmerson, A. M., M. D. 160
Childhood; Mrs. Theodore W. Birney 161
Coniston, by Winston Churchill 161
If Youth but Knew, by Agnes and Edgerton Castle . 161
The Battles of Labor: William Levi Bull Lectures for 1906. 161
The Prophylaxis and Treatment of Internal Diseases: F. Forchheimer. 161
Walter Reed and Yellow Fever, by Howard H. Kelly 160

Abstracts.

Carcinoma of the Uterus.. 150
Dietary Control of Basedow's Disease. 166
Etiology and Treatment of Diabetes 167
Resection of the Ovaries, 150
The Significance of Streptococci in Milk 150
Torticollis Wry-Neck 162

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irritation. It disappears as soon as the cause of the spasm is removed. The fixed form is due primarily to a change in the sterno-mastoid, and then to secondary contraction in the trapezius and other muscles of the neck and deep facia, and lastly there are distinct alterations in the shape of the cervical spine. The pathology shows that there is always a fibroid nature, the muscle-fibre being replaced by dense cicatrical tissue.

As to the asymmetry of the face, the author is of the opinion that it is due to the pressure on the carotid vessels which pressure allows less blood to go to the affected side. This may be proven by placing a delicate surface thermometer on the contracted side of the face where it is found that the temperature is less than on the uncontracted side. The author points out that there are three curves in the spine: one cervical, which is primary; second, a long compensatory curve in the dorsal region; and, third, a corresponding compensatory curve in the lumbar region. The treatment of this form is operative, and may be done in one of two ways: one, which is unsafe and unwise and unsatisfactory, viz.: subcutaneous tenotomy; and the other, which is perfectly safe and overcomes the deformity, that is, open operation and thorough division of the contracted muscle.

As to the spasmodic form of torticollis there is evidence accumulating to show that it is due to some form of cerebral lesion, probably due to sclerotic changes in the vessel. Many of these cases have some history of mental aberration in their family. They go through a large amount of treatment, all of the remedies proving of no value whatever. Up to the year 1888 the best form of treatment for these cases was the stretching or cutting of the spinal accessory nerve. To Professor Keen and Dr. Gardner, however, is due the credit jointly for devising a radical operation, which consists in cutting down on the posterior primary branches of the cervical nerve and removing a portion of them. By this operation you deprive the back part of the head of sensation, and also the skin of the neck, and you break the vicious reflex circle which runs through the sensory nerves. At the same time you cut out the motor supply to the posterior cervical muscles and so stop the vicious movements.

False torticollis is associated with spinal caries and follows cicatrices of burns and wounds in the neck. The neck is twisted in some cases in a way similar to that seen in true wry-neck.

Dietary Control of Basedow's Disease.—Alt (Muench. Med. Wochschr.) has conducted experiments in the metabolism of patients afflicted with exophthalmic goitre, and found that the pathological changes in function consist of sodium chloride retention, diminution in tolerance for carbohydrates (as appears from the presence of sugar in the urine after relatively small quantities of carbohydrates), and a much exaggerated excretion of phosphoric acid. In addition to this a greatly increased nutritional value is required by these patients to meet the active katabolic changes, in some cases as much as 100 calories per kilo of weight.

On the basis of these observations he places these patients on a milk diet, in quantity not containing more than 4 g. of sodium chloride in the 24 hours. This small quantity of salt is continued indefinitely; meanwhile the salt retention is relieved and a greater tolerance for salt is gradually developed. Carbohydrates (salt free) are added to the diet in 3 or 4 days and gradually increased until the limit of tolerance (indicated by the appearance of sugar in the urine) is reached. The weight usually falls until sufficient caloric-values have been reached. This is usually accomplished after the tolerance for carbohydrates has been reached by the addition of fats,—antithyreoidin during periods varying from four to eight weeks at intervals of two or three weeks.

5. Cases without marked goiter, with slight exopthalmic, tremor, and the Graeffe symptom, have yielded most readily to the antithyreoidin treatment. The enlarged thyroid has become perceptibly small, but has not returned to the normal size.

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Etiology and Treatment of Diabetes.— Burwinkel (Der Arzt als Erzieher) says that in 400 cases by French, 206 occurred between 40 and 60, 5 between 1 and 10, 42 between 30 and 40, 70 between 40 and 50, 2 between 60 and 70, 29 between 18 and 20, and 5 after 70. It has been present at seven months and at 81 years. Males to females is 3-1. Females in younger ages, especially during the menopause. The author believes that diabetes should be classified as a disease of metabolism or a constitutional disease; that no localized cause (?) has yet been established; that the normal urine contains a trace of sugar and blood; that if from 50 to 200 gms. of glucose is introduced into an empty stomach the urine contains sugar without the presence of organic disease. It is also normal in pregnancy and a few days after birth. That it is present in poorly nourished people (Hopp-Schiller); that shock and anxiety (Von Noorden), intoxications, carbondioxide, morphine, amylnitrite, alcohol and blue saure produce glycosuria. Etiological factors are heredity (gout, adiposes, uric acid diathesis and neurosis), alcoholism, sailors and people whose diet is composed mostly of sweets and carbohydrate; infections of the pons and fourth ventricle and cranium (tumors, hemorrhages, softening, epilepsy and apoplexy). The affections are also frequently accompanied by emaciation and other symptoms of diabetes. Psychical disturbances, as fright, etc., and changes in the pancreas. People of the upper class seem to be predisposed. The author mentions a very interesting case of a hysterical woman who injected sugar into her bladder in order to stimulate this disease. Among the atypical symptoms, weakness, malaise and loss of physical energy may be the only complaint for a long time. Contrary to the rule, decreased appetite, distension of the abdomen, vomiting and irregular bowel movements are sometimes early symptoms. Patients often complain of tape worm symptoms, or rheumatism and constant pruritis. Diabetic rhinitis sometimes causes the most disturbing symptoms and in children incontinence of urine. The author states that it is not uncommon to have a diabetes cause nephritis and also have sugar in the urine in a case of contracted kidney; that angina pectoris and phthisis occur as complications of severe forms of diabetes. As to the course Seegen observed no cures in 400 cases treated by Karlebab. Naunya and Wientric considered the prognosis as to cure unfavorable. Cantim reported 50 entirely cured in 218 cases. Young persons are specially liable to short, rapid course. Slow progression is a favorable sign. Excessive exercise and mental exertion frequently cause death by coma. Death is sometimes caused by secondary conditions. As to prophylaxis and treat-

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ment, he considers diet as most important. Large amounts of water are harmful; fresh air and a general hygienic condition of the skin are necessary. Mental control is absolutely indicated. Constant medical observation is necessary. Climate and environment are especially helpful in this disease.

Antedating the organization of the Red Cross work in other countries, Japan had instituted a system by which all the wounded in war received impartial treatment. Anticipating the present war Japan got her army medical service in working order, and as early as last January had fourteen chief surgeons, two hundred and seventy-seven ordinary surgeons, forty-five pharmacists, nearly two thousand trained nurses, about five hundred nurses on probation, besides a corps of stretcher bearers and male attendants.

Jury trials, says Judge W. W. Goodrich in an article in the Brooklyn Medical Journal, were first introduced in England by Henry II, in 1154, succeeding that hated and burdensome Norman importation, the duel or trial by battle, and that curious form of trial, than which nothing is older and which is everywhere found among barbarous people, to-wit, the ordeal, wherein the defendant is subjected to certain so-called divine tests, of the balance, fire, water, poison and sacred libation.

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Miscellaneous.

The Modern Management of Malarial Anemia.

One of the most obstinate forms of anemia with which the physician has to contend is that which succeeds malarial infection, This particular form of anemia is, unquestionably, due directly to the structural changes induced by the protozoon parasite.

While a mild form of anemia is a common, if not invariable, consequence of malarial infection, there is a severe type, termed malarial anemia, which not infrequently occurs. This latter variety usually responds slowly to curative measures; and, since its existence renders the individual a fit subject for recurring malarial manifestations upon the slightest exposure, the importance of its cure cannot be too strongly emphasized.

The doctrine of the latency of malarial poisoning in the human body is rapidly gaining in popularity. Some authorities even go so far as to claim that a person who has once been inoculated with the malarial protozoa never completely recovers.

Whether this be true or not, it is certain that the protozoon parasite does exert an influence which tends, for a great length of time, to lower vitality and render feeble the powers of resistance to renewed attacks. This is especially true in the case of women, children and persons of advanced age.

Recent investigators unite in ascribing the cause of malarial anemia to the liberation of hemoglobin from the red corpuscles in the blood vessels. The pigmentation resulting from this liberation of hemoglobin is one of the characteristics of malarial infection. And while the coloring matter may remain in the blood stream, it usually infiltrates into the cells and neighboring tissues. The deposit of pigment is especially great throughout the tissue of the liver and spleen.

The thickening and softening of the mucous membrane of the stomach which always attends malarial infection, seems likely to contribute, at least to some extent, to the development of anemia.

In every instance the degree of the anemia is in direct ratio to the amount of the hemoglobin liberated from the red corpuscles. And this fact explains the philosophy of effecting repair by the administration of iron, the hemoglobin-contributor.

Whether or not the protozoon parasite is ever completely eliminated from the economy remains an unanswered question. But it is now universally conceded that the protracted administration of iron does render the individual partly, if not completely, exempt from a return of malarial manifestations of an aggravated type. Far more so, in fact, than does quinine. Indeed, we have good cause to believe that iron does exert a destructive influence upon the malarial protozoa and increases the immunity of the individual.

While it is the chief aim of the physician to make up the deficiency of the hemoglobin in these subjects by the administration of iron, it is distinctly important, coincidently, to increase the appetite and augment the capacity to appropriate the food ingested.

To this end, discrimination in the selection of the form of iron to be employed is vitally essential. The acid solutions of the drug are ineligible because of the fact that they cannot be engaged for a long period without harmfully affecting the secretion of the digestive juices and adding to the morbid state of the mucous surfaces of the alimentary tract.

Furthermore, the continued use of acid products of any sort are certain to diminish the alkalinity of the blood, thus depressing, to a very considerable extent, the nutritive processes. Then, too, headache, which is an ever disturbing factor in these cases, is intensified by all substances of an acid reaction.

The strongly alkaline preparations of iron, while less objectionable than the acid ones, are open to fault for the reason that they induce constipation, and in this manner favor auto-intoxication.

By far the most effectual form of iron in the treatment of malarial anemia is that which is neutral in reaction and available for immediate absorption. The organo-plastic form of iron, as found in Pepto-Mangan (Gude), certainly fulfils the requirements of the physician with greater promptness and uniformity than any other product thus far evolved.

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In short, Pepto-Mangan (Gude) is of inestimable value in the treatment of malarial anemia by virtue of its manifold advantages over other preparations of iron.

If this preparation is administered for the proper length of time, the individual gains substantially in strength, flesh, physical and mental energy.

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I can recommend your Resinol Ointment as the best medicine for eczema. It has entirely cured a difficult case after six days application.—C. H. Emmons, M. D., Portland, Me.

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In making this suggestion they forget to add that a very large share of these "official" preparations are old proprietaries under other names. In other words, the great "reform" consists in the denunciation of such remedies as antiphlogistine, arsenauro, bromidia, lactopeptine, Fellows' hypophosphites, Antikamnia and Hayden's viburnum compound, while the use of practically the same things under other names is suggested or advised. In some instances the very formulas are used that proprietors have published or that analytical chemistry has elucidated.

There is a reason for the popularity of the proprietaries. Whether many of these were "wonderful discoveries" or not, they have enabled the average physician to secure results more satisfactory to himself and his patients than he was able to secure without them. Very, very few medical men are able to extemporize prescriptions which at the same time are effective, palatable and not uselessly polypharmacal. All doctors ought to be able to do this, but they are not—and whose fault is it? And even if they were, who but the sheerest crank would claim that he could properly write for, or the average druggist dispense, substitutes as elegant, as cheap and withal so satisfactory as many of the best type of the proprietaries? It is best to look all these facts squarely in the face and be sensible in our conclusions.—Clinical Medicine.

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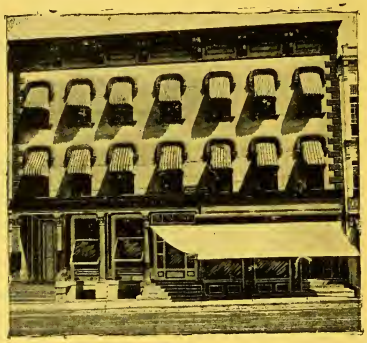

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After days or weeks of medication, as the case may be, more than mere passing consideration is due the stomach of the convalescent. The diet must contain not only the food elements necessary for repair of all the tissues, but it must be appetizing.

The addition of Egg-O-See, the flaked wholewheat food, to a diet of milk, eggs and fruits, is a most welcome departure and will be not only eagerly acceptable, but will materially aid the reconstruction processes by supplying to the cells the diversified food elements which are more abundant in wheat than any other product of the soil. Order Egg-O-See for your patient and watch the resultant satisfaction.

If you have not eaten Egg-O-See address the Egg-O-See Cereal Co., Quincy, Ill., and receive full size package free of cost.

A Modification of the Virulence of Syphilitic Lesions.

"I prescribe your Succus Alterans and have for a number of years. I cannot express too approvingly my appreciation of it. My patients invariably improve, and it seems to change the virulence of the syphilitic lesions in a remarkably short time. One case in point: A young man, patient of mine, has taken in all five or six bottles of Succus Alterans. He received an injury to upper tibia region of the leg, resulting in a severe contused wound; likewise two other members of the same wheelmen's club received about similar injuries. My patient's leg was healed first, and could detect good healthy granulations in twenty-four hours; thus showing his general blood condition. This is the more remarkable from the fact that prior to the use of Succus Alterans all his lesions showed a most rapid tendency to destruction of tissues, and doubtless this injury would have thus resulted."—J. R. G., M. D.

Oglesby, Ill., Jan. 30, 1906.

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Gentlemen:

Yours of the 29th inst. at hand. I used sample of Uric-Antagan on case of rheumatism, where other rheumatic treatment had disturbed the stomach. I got very good results, the digestive apparatus being undisturbed by the Uric-Antagon. It has proven itself a very efficient remedy in my hands. Yours for success,

(Signed) RALPH G. CRESSMAN, M. D."

Have used and prescribed Resinol Ointment and Soap with very satisfactory results. Last case was one of eczema on face and shoulders, and of several years standing. The trouble has entirely disappeared with the use of one jar of ointment and one cake of soap.—Chas. Hubley, M. D., New York City.

I have prescribed Resinol Ointment for four cases of Pruritus Ani recently, and have obtained instant relief. I have completely cured one case of eczema with the ointment, and I have a number of families who keep it on hand as a family medicine.—G. W. Smith, M. D., Ft. Smith, Ark.

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Conservative Surgery, or the Use of External Applications in Cases of Doubtful Surgical Procedure.

Without any comment on the conservation with which a surgeon should use the knife in doubtful surgical cases as regards time, symptoms and condition of patient, I shall give you several cases which have been under my own observation.

Mrs. H., age 24, married, had suffered pain in both ovaries, especially the right, shortly before, during and for a short time after menstruation, from the beginning of her menstrual life at the age of 14. This pain gradually increased in severity and time of duration until it had become almost constant and unbearable.

After being advised by several excellent physicians to undergo operative procedures for diagnostic as well as curative purposes, she consented. When the abdomen was opened both ovaries were found to be cystic, the cysts being more numerous in the right. The appendix was normal and healthy and gave no evidence of having been in a pathological condition at any previous time. Both ovaries were removed as a curative and preventive measure.

The patient made an uneventful recovery from the operation, but for three years after, when she again sought medical advice, the pain continued as before, with the addition of slight swelling and tension in the right hypocondriac region. The patient passed through the artificial menopause with very little inconvenience or nervous disturbance.

Case 2.—Man, married, age about 27, suffering from acute attack of appendicitis, as diagnosed by the attending physician, two consulting physicians concurring. Constitutional symptoms present and anatomical appearances, such as tension, redness, swelling and pain at McBurney's point, pronounced. Operation advised, to which patient and wife objected.

In both the above cases Antiphlogistine was repeatedly applied, with the most marked benefit. In one case, although the woman had suffered three years after the operation, through the influence of Antiphlogistine the pain and tension were modified, leaving only a small, soft elevation in the region of the appendix. Pain returned only at long intervals and with diminishing severity, and there is every indication now, after one year's treatment along this line, of permanent relief.

In case two the same treatment was carried out. Tension, redness, swelling and pain diminished with the first application of Antiphlogistine, and disappeared after ten days. With some constitutional treatment the patient entirely recovered in this time. In this case there has been no recurrence of the attack in over three years.

I had another case in which two wire nails were driven through the palm by a falling timber. This was followed by pain and swelling after a few hours (no bleeding), the swelling extending up the forearm.

Another case was one of a deep infected wound following paronychia. This wound was opened to the bone and free drainage established, but it gradually grew worse, involving the whole hand. Amputation of the finger or hand was advised, to which the patient objected, saying he would die first.

In both these cases the local application of Phenol and Antiphlogistine gave relief and finally cure. In the latter case I cleansed the wound with hydrogen peroxide and applied silver nitrate to the exuberant granulations.

Multiples of these minor cases could be given, where the knife seemingly was indicated, but which rapidly yielded to local applications along the above lines.

I also had an interesting case in a boy 12 years of age who suffered from osteo-myelitis of the femur of several years' standing. The discharge was constant through a fistular opening, and the case showed no evidence of improvement, although at several operations all diseased bone and some healthy bone had been removed. An Antiphlogistine dressing was persistently applied, with the result that several large particles of bone sloughed off, after which the opening rapidly closed. No further pathological process has been observed in this case in ten years, although an enlarged knee joint and some ankylosis remain as sequelae.

*Read by F. W. Hender, M. D., Beaumont, Texas, before the semi-annual convention of the South Texas Medical Association, June 26, 1906, at Houston, Texas.

Tri-State (Alabama, Georgia, Tennessee) Medical Society.

The eighteenth annual meeting of the Tri-State Medical Society of Alabama, Georgia, and Tennessee will be held at Chattanooga October 2-4, 1906. Reduced rates have been obtained from all points in Alabama, Georgia, Tennessee, Mississippi, Louisiana and Florida, and an unusually large attendance is assured.

The preliminary program includes an excellent list of papers from leading medical men of the South. Strong pressure will be brought to bear to ultimately convert this organization into a branch of the A. M. A. The Association of the Southeastern States, and recommendations will be made at this meeting.

Physicians desiring to read papers should send their titles at once to the Secretary, Dr. Raymond Wallace, Chattanooga, Tennessee.

The next meeting of the Mississippi Valley Medical Association will be held at Hot Springs, Ark., November 6th, 7th and 8th, under the presidency of Dr. J. H. Carstens, of Detroit, Mich. The annual addresses will be delivered by Dr. Frank Parsons Norbury, Jacksonville, Ill., in Medicine, and by Dr. Florus F. Lawrence, of Columbus, Ohio, in Surgery.

Dr. Norbury has chosen for the subject of his address, "Clinical Psychology," and Dr. Lawrence will discuss in his address, "Surgical Principles and Theories." In addition to these addresses there will be the annual address of the President, Dr. Carstens.

A partial list of the papers promised is published herewith. Communications regarding papers should be addressed to the Secretary; Dr. Henry E. Tuley, 111 W. Kentucky Street, Louisville, Ky.

Elaborate arrangements have been made by the local profession of Hot Springs to entertain the visiting doctors and their wives, the meeting being held at one of the largest hotels, which will be specially opened in advance of the season to accommodate the Association. A cordial invitation is extended to every physician in the Valley to attend this meeting for which a large number of interesting and valuable papers have been promised.

The American Medical Association is apparently more prosperous today than ever before, but this apparent prosperity rests upon a precarious foundation, and the organization is in jeopardy of its very existence as the one great bond of union in the medical profession. There is loudly expressed disaffection with the present management all over the country, from Texas to Michigan and from the Atlantic to the Pacific, disaffection which is assuming definite form in the organization of new State medical societies owing no allegiance to the national body. There is even serious talk of a rival national association. The leaders in this revolt confound the Association with its temporary rulers—a confusion which is shared by these same rulers—but

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Its Action is Prompt; it stimulates the appetite and the digestion, it promotes assimilation, and it enters directly into the circulation with the food products.

The prescribed dose produces a feeling of buoyancy, and removes depression and melancholy; hence the preparation is of great value in the treatment of mental and nervous affections. From the fact, also, that it exerts a tonic influence, and induces a healthy flow of the secretions, its use is indicated in a wide range of diseases.

NOTICE--CAUTION.

The success of Fellows' Syrup of Hypophosphites has tempted certain persons to offer imitations of it for sale. Mr. Fellows, who has examined samples of several of these, **finds that no two of them are identical**, and that all of them differ from the original in composition, in freedom from acid reaction, in susceptibility to the effects of oxygen when exposed to light or heat, **in the property of retaining the strychnine in solution**, and in the medicinal effects.

As these cheap and inefficient substitutes are frequently dispensed instead of the genuine preparation, physicians are earnestly requested, when prescribing the Syrup, to write "Syr. Hyphophos. **Fellows.**"

As a further precaution, it is advisable that the Syrup should be ordered in the original bottles; the distinguishing marks which the bottles (and the wrappers surrounding them) bear, can then be examined, and the genuineness—or otherwise—of the contents thereby proved.

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they forget that the great body of the Association is composed of earnest, honest men, caring naught for medical politics, and as yet barely awaking to the fact that they are governed by unwise men, who, wittingly or unwittingly, are dragging down the medical profession of the country into the mire of disunion. When once they are fully alive to the dangers which threaten their organization they will be not slow to make a change in methods, if not in men.

A rupture of the Association and the formation of a rival body would be a grievous disaster, for a disunited profession would bring ridicule upon itself and lose what influence it now has in matters of public health. It is in the hope of arousing the members of the Association to a sense of their peril that the "Medical Record" has assumed the thankless task of criticising the management, exposing its policy of concealment, and condemning its dictatorial methods. It believes the Association can be saved from disruption only by curbing the intemperate zeal of those who now control it. Those men must be made to realize that they are the servants of the Association, not its masters. One or two of them are men of ability, but so much the more dangerous if their talents are employed to further selfish ends rather than in the interests of the American Medical Association, whose creatures they are. The "Medical Record" claims the right to speak for the Association when the natural protectors of the latter are turned against it; it is they, not we, who are the real enemies of the Association, since it is their acts, not our criticism, which have brought this great body to the brink of disruption. —Editorial "N. Y. Med. Record."

Journal of the American Medical Association.

What we are chiefly interested in the development of this great Association is its size; this makes it impossible, as the Journal states, to have a really scientific body. As this paper says, four or five thousand physicians may be brought together with scientific results of some value, but even this is doubtful, but when fifteen thousand are assembled for a common object the whole thing will resolve itself into a great mass meeting of very little scientific importance. The solution recommended by Dr. Campbell, of Bellows Falls, Vermont, is the formation of Medical Associations in different parts of the country which could meet at stated times in one or another of those sections. It seems to us very evident that the whole country will finally demand at least four or more Associations, arranged according to the section, East, West, North and South. As we said last month, the ambitious ideas of those who wish to create a great political organization to influence Legislatures and the National Congress for the benefit of the public and in some instances for the benefit of the individuals of the profession, will be abandoned. They can only be impotent or harmful. The criticisms of the recent National Congresses at Lisbon, and of one held a few years ago at Rome, where thousands of physicians of various nationalities assembled, might be paraphrased as follows, a large medical mass meeting is a good thing as a picnic or a clam bake, but it is very remote from being a great scientific body. —Post Graduate.

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Relationship Between Graves's Disease and Acute Rheumatism.

Robinson in The London Medical Lancet gives an account of a case of Graves's disease which began with a rapid heart, pulsations in the neck, and later developed the typically prominent eyeballs and enlarged thyroid of Graves's disease. During the progress of the disease the patient developed a tonsillitis and an iritis, the latter persisting for some time notwithstanding the free administration of salicylates. Later there was joint trouble. Both parents gave a family history of rheumatism. In analyzing the statistics of Guy's Hospital it was found that there were 127 cases of Graves's disease admitted, and of these 18.9 per cent. gave a definite history of rheumatism, and in 9.45 per cent. there was a history of acute rheumatism in the family. Greenfield called attention in the Bradshaw lectures of 1893 to the association of acute rheumatism and Graves's disease, and the same connection was noted by Fagge and Bramwell.

Treatment of Severe Burns.

Widenfield (Wiener med. Presse) experimenting on rabbits and guinea pigs found that these animals died when septic particles of the skin of the same species were introduced into their peritoneal cavities, whilst they lived when the skin was previously

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exhausted with water or boiled for some time. He believes that the skin contains a toxin which is soluble in water. The prognosis depends on the depth of the burn and the area affected. The author suggests the use of analeptics and warns against morphine, which in this condition has proved fatal. Infusions of 4 to 5 liters per day are of great service, and the operative removal of sloughs is advocated. The writer's results have been very satisfactory, as all have recovered. In some cases the burn involved one-fourth to three-eighths of the body.

Tongaline represents a complicated prescription and some of its ingredients are very expensive, but all have been most carefully selected, are fresh and pure, and are so skillfully combined by the most improved processes that the full therapeutic strength of each drug is secured, giving one of those happy and fortunate pharmaceutical products which has made Tongaline a standard remedial agent for 25 years.

It would be utterly impossible for any such results to be obtained by hastily compounding an extemporaneous prescription, even if all of the ingredients were of the freshest and purest, which is not apt to be the case.

As much depends upon the manner in which the ingredients of Tongaline are compounded as upon the character of these drugs, and years of experimentation have taught its proprietors the most successful method of putting these ingredients together.

In almost every instance where the expected results have not been secured from the use of Tongaline, it has been found that the genuine preparation was not dispensed. The wonderful success of Tongaline has naturally encouraged many imitations possessing little, if any, intrinsic merits.

Every physician should therefore protect himself and his patients from worthless substitutes by prescribing Tongaline in original packages, or take care that his prescriptions are dispensed by honest and reliable druggists.

"The purest form of salicylic acid is obtained from the oil of gaultheria. That made from carbolic acid has so many objectionable features that its usefulness is largely counteracted, and in fact it is surpassed in value by other agents. It disturbs the stomach, depresses the heart and may injure the kidneys. It is liable to cause headache and vertigo."

Extract from an address delivered before the York county, Pa., Medical Society, June, 1905, by John V. Shoemaker, M. D., LL. D., Professor of Materia Medica, Pharmacology, Therapeutics and Clinical Medicine in the Medico-Chirurgical College of Philadelphia.

All the salicylic acid in Tongaline is made from the purest natural oil of wintergreen, hence in prescribing Tongaline physicians can always rely on giving their patients the gaultheria salicylic acid, provided the genuine Tongaline is dispensed.

Common green copperas, pulverized, says the Country Gentleman, will effectually drive away rats. The copperas, it is claimed, makes the rats' feet sore and causes them to speedily leave their usual haunts.

The peculiar virtue of this remedy lies in the fact that it is not necessary to first catch the rats and rub the powder on their feet. The rats simply walk over the copperas which does the rest.

I find Resinol Ointment the best preparation on the market for Pruritus, and use it with very satisfactory results for itching piles.—H. C. Card, M. D., Hartford, Connecticut.

Bullous Affections and their Classification.

Bronson (Jl. Cutan. Dis.) says that the term bullous diseases should be taken in a very restricted sense, inasmuch as a bullous eruption is nearly always the concommitant of some other disease. Of bullous affections there are two fundamental divisions: (a) Obstructive forms in which bullæ occur as the result of obstruction in the sweat follicles or in the lymphatic channels with mechanical obstruction at the point of escape in the epidermis; (b) acantholytic forms in which a vital impairment of the cohesions between the prickle cells enable a relatively slight collection of serum to force its way through the cells and produce a lacuna. Acantholysis may be considered a consequence either (1) of external injury, (2) of absorption into the epidermis of venous or infectious matter, (3) of some other cutaneous affection which may be either symptomatic or idiopathic, of which the bullous affection is only an incident, (4) finally of some anterior disease transmitting an injurious influence directly to the prickle cell layers of the skin, in which case the resulting bullous eruption may be a pathognomonic sign either of a localized nerve lesion, or of some more general disease reflected to the skin through the nervous system; but even in such cases the immediate cause of the bullous affection is very often some more or less slight and commonly overlooked local external injury.

A Contribution to Kidney Surgery.

Clairmont (Arch. f. klin. Chir.) in an article analyzes the methods and results of Professor v. Eiselsberg, of Vienna. The author states that this analysis shows that cryoscopy is of value in kidney surgery only when the results are controlled by numerous examinations, and that the method has practically no value in aiding the establishment of an early diagnosis. The phloridzin test is much more delicate than cryoscopy, but even this method is not infallible, since positive results are sometimes obtained when the kidneys are normal, the seat of disease being the gallbladder.

The tumor of the kidney which occurred most frequently was the hypernephroma. Carcinomata occurred with the greatest rarity. The occurrence of brown pigmented ephelides on the body speaks in favor of a kidney tumor being a hypernephroma. The mobility of a kidney tumor is not necessarily a sign of operability. Tumors that bleed easily contraindicate urethral catheterization. Partial secretion of the kidney should never be practiced as a cure for kidney tumors. Transperitoneal nephrectomy should never be practiced; large tumors even should be removed by the lumbar route.

When the ureter is exposed for stone the kidney and kidney pelvis should be explored also.

For hydronephrosis, nephrotomy is an operation of necessity and should be performed only when nephrectomy is contraindicated. Nephrotomy sometimes cures in the early stages of an ascending pyonephrosis. If a fistula persists after a nephrotomy, then secondary procedures (excochleation, resection, nephrectomy) are necessary. If a nephrectomy is contraindicated owing to insufficiency of the other kidney, it is often wise to do a preliminary nephrotomy and then wait a reasonable length of time for the other kidney to re-establish its function, after which a secondary nephrectomy may be done.

There is such an entity as reflex anuria, caused by irritation of one kidney as a result of disease of the kidney parenchyma.

The "White Eagle Pharmacy" in Berlin, Germany, recently celebrated its 200th anniversary.

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Rupture of the Aorta, and Arteriosclerosis During Childhood.

Oppenheimer (Virchow's Archiv) reports two cases of arteriosclerosis in children aged nine and ten years respectively. In the first case, without preceding traumatism, a longitudinal tear measuring three inches was found in the intima and media of the aorta, one-half an inch above the line of closure of the valves. At one point this tear presented a perforation into the pericardium, from which a fatal hæmorrhage had taken place. Two other arteriosclerotic plaques were found to be present. He believes the point of origin of the disease is in the media, for the reason that the elastic fibres of the media were found to be extensively torn in portions of the aorta which were microscopically intact. No primary inflammatory process of proliferation existed in the intima or adventitia. In the second case, of simple arteriosclerosis, the media was normal, whereas cellular infiltrates occurred in the surroundings of the nutrient vessels.

Differentiation of Elements in Urinary Sediment.

Wederhake (Munch. Med. Woch.) proposes the differentiation of various elements in urinary sediments by staining by the following methods: Centrifuge the urine, pour off the supernatant fluid, mix the sediment with a drop of tincture of iodine and then add an amount of concentrated solution of crocein scarlet in 70 per cent. alcohol to equal the bulk of the precipitate. Dilute the mixture with water and centrifuge again. The nuclei, says the author, will be stained red; the protoplasm of the renal epithelial cells also red; that of the bladder epithelium yellow to red. The ordinary casts are red; waxy casts are blue. The superficial epithelial cells always stain less intensely than the deeper ones. The pus cells are always red.

Labordine, the vegetable antipyretic, is a safe and reliable preparation to prescribe in all conditions where an antipyretic is indicated. It is a vegetable product, and therefore is free from all of the objectionable qualities of the mineral preparations while possessing the necessary healing properties. No heart depression follows its use, no habit formation and no bad after effects. Samples will be furnished on request.

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Dumas once dined with a famous physician who after dinner brought out an autograph album in which he requested the celebrated author to inscribe a motto. Dumas commenced:

"Since the famous Dr. Blank began to practice here they have demolished the hospital—"

"Flatterer" cried the doctor.

"And" continued Dumas, "on its site made a cemetery."

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The Diagnostic Value of Radiography in Fractures.

Don (Scot. Med. & Surg. Jour.) states that there are means of overcoming most of the difficulties in radiography used for fracture diagnosis. The radiographer must know his osteology and be familiar with the principal surgical bony lesions, or, alternatively, the surgeon himself must direct the manipulations of the electrician to get the picture he desires. The secondary and adventitious rays must be cut off as far as possible by diaphragms of some material impervious to the X-ray. The current through the tube in the wrong direction, that is, from cathode to anode, must be choked by a valve-tube, or other contrivance of a similar nature. This is not necessary if a static machine is used. Fractures in or near joints are very difficult to reproduce well in radiograms and more than one plate may have to be taken. The muscles about the shoulder and hip joints in muscular men are sufficient to obscure almost completely a bony lesion, and to this is often added the overlapping of the bones themselves.

Hernia of the Uterine Adnexa, with a Personal Experience of Seven Cases.

Carmichael (Jour. of Obst. and Gyn. British Empire) says that inguinal hernia in the female is associated with hernia of the uterine adnexa in a very large proportion of cases. This association may be expected in from 25 to 30 per cent. of all cases. Out of 23 cases operated upon by the author, the ovary or Fallopian tube, or both, were present in the hernial sac in seven cases. Of a total of 76 cases of inguinal hernia operated on in female children in the Edinburgh Royal Hospital, 30 had contents in the sac, and of these 24 comprised ovary or tube, or both. Although isolated cases are from time to time recorded as being of rare occurrence, one is forced to consider ovarian hernia as one of the most common, if not the most common as compared with hernia of any other abdominal viscus. Of the seven cases operated upon by the writer, three were bilateral. In young babies (under one year) according to the statistics compiled by Carmichael, the uterine adnexa may be looked for in more than 60 per cent. of all inguinal hernias. The degree of hernia varies from that of a complete descent of ovary and tube with the broad ligament, to any partial protrusion of one or both of these organs. The younger the child the more common are the complete hernias. When the adnexa are situated in the canal of Nuck they are not as easily replaced, like a coil of intestine, for, although mobile, they are to a certain extent fixed. As a rule the tube seems to lie lower down in the sac than the ovary. That the ovary continues to functionate in its abnormal position is shown by many records in literature; even ectopic pregnancy in a hernial sac has been described by several authorities. Pathologic changes in herniated ovaries are a frequent occurrence. Acute and chronic inflammation is most common. Torsion is not infrequent. Cystic degeneration and malignant changes in later life are recorded. Several authorities report the association of hernia of the uterine appendages with maldevelopment or non-development of them, or of the other genital organs.

Most of the recorded cases of hernia of ovary and tube into the femoral canal have occurred in women in adult life.

One Death Accounted For.

The following statement, according to the Manchester Evening Guardian, recently appeared on the woman's page of a contemporary.

"Martha M.—The reply given last week was a mistake. You should have taken one-quarter of a grain of strychnine, not one-quarter of a pound."

Alcohol and Alcoholism.

Bieling (Der Arzt als Erzicher) writes very exhaustively on (1) alcohol and alcoholic drinks; (2) physiologic effects of alcohol; (3) alcohol and disease; (4) alcohol and death; (5) alcohol and injuries; (6) alcoholism as to mortality; (7) heredity; (8) its prophylaxis, etc.; (9) the doctor and alcohol. He says the most important point concerning alcoholism is ethyl alcohol which is present in from 2 to 80 per cent. in all alcoholic drinks. Among other things fusel oil is one of the deleterious ingredients of the cheaper alcoholic drinks. The writer points out their physiological action on the gastro-intestinal tract, cardio-vascular and nervous systems and other organs, by pathological findings and experimental research. That alcohol has a predisposing and continuing influence on the cause and duration of disease of all the systems he accepts without question. That alcohol has increased the death rate of tuberculosis, typhus, and accidents five times and that it has increased the mortality of other diseases from 5 to 10 per cent. is shown by tables. He gives statistics concerning its malicious effect upon the mortality and the hereditary influence of the masses. As prophylaxis he gives (1) limitation of non-distilled drinks, and (2) total abstinence. The author believes that the medical profession must take the initiative in discouraging and interdicting the use of alcohol in order to prevent these evils and protect humanity.

Dangers of Ventrofixation.

Calman (Zent. f. Gyn.) mentions a case of twin pregnancy after ventrofixation in which the position produced in the uterus rendered a natural delivery of the children impossible. The patient had been operated on for an ovarian cyst on the right side, and at the same time the retroflexed uterus was attached to the anterior abdominal wall. The patient's previous labor had been eapy. After the operation she had pain and hemorrhage, had two abortions, was curetted, and then had severe hemorrhage during the pregnancy, with crampy pain, backache and weight in the abdomen. Below the navel and to the right the abdominal walls were much distended. The uterus was bent toward the right and a sort of diverticulum extended deep into the loin. The right round ligament was felt to be much stretched, while the left could not be found. There was twin pregnancy combined with torsion of the uterus. The fetuses were both lying across the pelvis and neither became engaged. The posterior lip of the cervix could be felt, drawn far up above the promontory. It became necessary to deliver by version, and thus two living children were obtained with some difficulty, as fortunately the foot of one child came down into the pelvis. The position of the uterus prevented any part of either fetus from becoming engaged, and had not version succeeded, a Cesarean section would have been necessary. The right side of the uterus was much stretched, while the left took almost no part in forming the cavity for the fetus. The author questions whether one ought to perform an operation that so changes the position of the uterus.

A representative of the Chicago Clinic was waiting in the outside office of a physician for an interview when the door of the consultation room opened and the doctor inquired:

"Who has been waiting the longest?"

"I have," called out another man in the waiting room. "I delivered your clothes two years ago and the bill has not yet been paid."

A medical writer says the models of the Botticelli school all show a tendency to tuberculosis.

LISTERINE

The original antiseptic compound

Listerine is an efficient and very effective means of conveying to the innermost recesses and folds of the mucous membranes that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of Listerine, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

LISTERINE DERMATIC SOAP

A saponaceous detergent for use in the antiseptic treatment of diseases of the skin

Listerine Dermatic Soap contains the essential antiseptic constituents of eucalyptus (1%), mentha, gaultheria and thyme (each ½%), which enter into the composition of the well-known antiseptic preparation Listerine, while the quality of excellence of the soap-stock employed as the vehicle for this medication, will be readily apparent when used upon the most delicate skin, and upon the scalp. Listerine Dermatic Soap contains no animal fats, and none but the very best vegetable oils; before it is "milled" and pressed into cakes it is *superfatted* by the addition of an emollient oil, and the smooth, elastic condition of the skin secured by using Listerine Dermatic Soap is largely due to the presence of this ingredient. Unusual care is exercised in the preparation of Listerine Dermatic Soap, and as the antiseptic constituents of Listerine are added to the soap after it has received its surplus of unsaponified emollient oil, they retain their peculiar antiseptic virtues and fragrance.

A sample of Listerine Dermatic Soap may be had upon application to the manufacturers—

Lambert Pharmacal Company
ST. LOUIS, U. S. A.

Awarded Gold Medal (Highest Award) Lewis & Clark Centennial Exposition, Portland, 1905

Awarded Gold Medal (Highest Award) Louisiana Purchase Exposition, St. Louis, 1904

Bronze Medal (Highest Award) Exposition Universelle de 1900, Paris

Hemorrhoids; Their Cause, Symptoms and Treatment.

Kuhn (Der Arzt als Erzicher) considers anatomical conditions of importance with regard to the production of hemorrhoids including the complications of hemorrhage, infection, strangulation, fistula and irritation. The author gives the etiology as (1) indirect or general: (a) individual disposition, (b) abuse of alcohol, (c) chronic diseases, as diabetes, tuberculosis and blood diseases, (d) variable influences, excessive eating and drinking, misuse of cathartics and constant use of rectal injections, confinement and certain occupations. (2) Direct: (a) Depression in the large intestines, certain occupations, as wind-blower's constipation, passive congestion of the hemorrhoidal veins, chronic colitis, diarrhea, heart and lung diseases. The author states that the general symptoms are usually due to the underlying cause, liver or gastro-intestinal disturbances, but that also such important symptoms as palpitation, dyspnea, pyrosis, cold feet, anorexia, chilly sensations, are probably due to general circulatory disturbances. Local symptoms are, tickling and pruritus of the rectum, and even painful sensation and feeling of distention and heaviness, sometimes pressure on the abdomen, foreign body sensation in the rectum, localized pain, which may be so great as to make bowel movements apprehensive with tenesmus, prolapse with or without strangulation, infection and secondary colitis. The physical findings of hemorrhoids are made by inspection with or without a proctoscope, by means of a small sponge tied to a string introduced into the rectum to pull the rectum down for inspection. Intussusception in children is differentiated by its ring form, polypi by its pedicle, abnormal mucous covering and the age at which it occurs. Tumors of the rectum are not so rich in blood, and carcinoma of the rectum should early be differentiated.

Treatment. (1) Prophylaxis: (a) The careful selection of soft toilet paper or cotton surrounded by clean toilet paper; (b) careful hygienic bathing with careful attention to the rectum, local or general baths following defecation; (c) local applications of vaseline or lanoline, reduction by massage of protruding mucous membrane. (2) Active: (a) Correction of gross mechanical causes, as tumors, gastro-intestinal disturbances, ascites, etc.; (b) regulation of the bowels; (c) diet; (d) physical exercise; (e) hydrotherapy; (f) pessary. He describes in detail many different forms of rectal pessaries, with one of his own; some he recommended most heartily. Under local applications he classifies the following: (1) Ointments for lubrication; (2) anodynes; (3) healing ointments; (4) cathartic senments. As to operative treatment he says that in many cases operation is not necessary and should be as a last resort in those cases which cannot be modified anatomically and symptomatically by medical or other treatment.

American Medical Association.

The criticism which is growing that the Journal of the A. M. A. is publishing too much matter will again be in evidence when this matter is put into print. Something will have to be done to cut down the amount to be published, out of the papers presented, or the sections restricted to less papers than at present allowed, in order to meet a living criticism of importance against our Journal.

The House of Delegates.—The House of Delegates, the greater portion of which was made up of new members, is manifestly becoming more and more a working body for the Trustees, especially if the Trustees are all re-elected, as was done at the last meeting.

The personnel is high, but with frequent changes members scarcely begin to know of the plans and methods of the Association before their respective terms of office have expired. To serve in this body conscientiously means that the delegate is to lose scientific work, and few are found who will accept a re-election, and new men then take their places.

The House of Delegates was strictly in sympathy with the management of the A. M. A., and we should feel under obligations to the House and the Trustees for the privilege of a hearing, and an extensive declaration of Oregon's protest, as well as criticism of arbitrary methods as to the Oregon situation.

The management of the A. M. A. is in the hands of Messrs. Billings, McCormack and Happel, with the aid of a few lesser luminaries, ready to second their efforts in every particular.

A Good Ring.—Every great and successful organization is managed by a few men, and the partisans of the A. M. A. management "point with pride" to what these men have done. They certainly demonstrate that the growth of the A. M. A. during the term of these men has been almost marvelous. It is insisted that the ring is "a good ring." —Medical Sentinel.

Chorea Considered as Cerebral Rheumatism.

Duckworth, in the British Medical Journal, gives his adherence to the infection theory of rheumatism, and admits the claims of Poynter, Paine, and others as to the isolation of the bacterial element therein. Chorea is also a manifestation of the infection. The old theory of nervous shock or fright in its causation must be abandoned, although we must acknowledge a neurotic factor in the pathogeny of the disease. The embolic theory, also, of causation is no longer tenable. That the young and the female sex afford the greater number of examples of chorea is probably due to the fact that in such subjects the rheumatic toxin is more apt to spread widely and to act with greater intensity than in adults. The adolescent brain is also more unstable than the adult one. The writer says we have to bear in mind that the occurrence of chorea may be the sole manifestation of an attack of rheumatism in the absence of any concomitants, beyond possibly some degree of cardiac dilatation. It is thus a true cerebral rheumatism. This fact has not failed to inspire observers with doubt and incredulity as to the true rheumatic nature of the disorder. It is surely worthy of note that in first attacks of rheumatism and in first attacks of chorea there is not seldom to be observed a distinct degree of cardiac dilatation, sometimes independent of pyrexia, pericarditis, or appreciable endocarditis. This condition appears to be due to rheumatic toxemia, which induces a measure of myocarditis. In some of these cases the more ordinary rheumatic symptoms may supervene. The rheumatic toxin must possess a certain specific infecting quality, as we do not meet with chorea in cases of ordinary streptococcal infection or in strictly pyemic conditions. It is probable that there are variations in the quantity and degrees of virulence in the provoking toxin of rheumatism which does not merely represent an alternated form of blood poisoning due to various pyogenic organisms.

"Last week a delinquent subscriber said he'd pay if he lived. He died.

"Another said he would see me tomorrow. He's blind.

"Still another said he'd pay within a week or go to the devil. He went."

"There are hundreds," writes the country editor who prints these lines, "who should take warning from these procrastinators and pay up now."

The mortality of infancy is greater than that of any age until the eightieth year.

JOHANN HOFF'S MALT AND IRON

(PEPTONATE OF MANGANESE AND IRON.)

Is an ideal preparation to build up

BLOOD AND BODY

(Each wineglassful contains 1 gramme of Peptonate of Manganese and Iron.)

It is a Nutrient Oxygen Carrying Agent

Contains only a minimum amount of alcohol (less than 3%); is more readily absorbed into the circulating fluid than the iron preparation by itself.

Johann Hoff's Malt and Iron is of marked and certain value in all forms of Anæmia, Chlorosis and general debility.

EISNER & MENDELSON CO. of New York,

SOLE AGENTS.

Extramembranous Pregnancy.

Pfeilsticker (Archiv f. Gyn.) mentions from Winckel's Handbook eighteen cases of hydrorrhea of the gravid uterus in which the cause of the flow was rupture of the ovisac with passage of the fetus outside of the membrane. No abortion occurred, but the pregnancies went on to term. Some of these cases were extra-amnial, others extrachorial. To these eighteen cases the author adds three others from literature. In some cases there is a flow of blood from the uterus throughout the pregnancy, while in others there is little blood and more watery fluid, or the flow does not continue through the whole pregnancy. Labor is usually premature, since the fetus has not room for its development. The author observed a case in a multipara, in whom there was bloody, watery flow from the uterus through the whole pregnancy, ending with premature labor, and the delivery of a weak child that died soon after birth. There was no bag of waters and no flow of amniotic fluid during labor. In the afterbirth there was a disproportion between the size of the fetus and of the sack, and a tear in the membranes at the pole of the ovum. The author believes that the cause of the rupture of the ovisac was an endometritis which thinned the sac so that the pressure of the contained fluid caused it to rupture. A trauma from without may be the immediate cause of the tear in some cases. An endometritis would cause a weakness of the chorion because it takes its nourishment from the decidua. The rupture begins without; first the decidua and chorion burst and then the amnion is unable to sustain the weight of water, and that also ruptures. The condition may begin like an ordinary abortion which becomes stationary and hydrorrhea ensues. Finally the degeneration of the chorion brings about rupture. Here bleeding takes place first. In other cases the watery fluid comes first, when the chorionic villi are too much atrophied to cause bleeding at first, and later villi that are in more normal condition begin to bleed. Another cause of this rupture may be an attempt at criminal abortion which has only partially perforated the membranes and has allowed the development to go on. In this case the rupture comes from without inwards.

Surgical Treatment of Puerperal Infection of the Thrombophlebitic Form.

Guicciardi (Ann. di Ostet. e Gin.) calls thrombophlebitic infection in the puerperal state a rare form of infection. Initiated in the uterine cavity it passes from the venous sinuses to the periuterine veins, producing septic thrombi, and later becomes a generalized pyemic process. It should be kept entirely distinct from the other forms of infection, as to diagnosis, prognosis and also therapeutics. The prognosis is always grave, due to the general infection which takes place with the formation of local foci. The symptoms are frequency of pulse independent of the severity of the rise of temperature, a pyemic temperature curve, intense chills repeated throughout the disease, general bad condition and anemia, peculiar character of the pain in the abdomen, and recognition of the thrombosed veins as resistant cords by bi-manual examination. Bacteriological examination of the blood is of little value, both because it is inconstant and contradictory in results. The leucocyte formula has only a relative value. Ordinary obstetric care is valueless. There are precise and rational indications for surgical interference. Hysterectomy, either vaginal or abdominal, is not to be advocated; resection of the thrombosed veins is dangerous; simple ligation is the best method of surgical treatment. This results in disappearance of the local infective processes and of pain. The best time for intervention is the twentieth day after labor.

The "Home Sanatorium" Treatment of Consumption.

Pratt (Johns Hopkins Bull.) describes the methods and the results of the "Emanual Church Tuberculosis Class," which was organized in July, 1905. He says that "the vast majority of all tuberculous patients must be treated in their homes" The chief difficulty in the treatment of these patients is to secure the necessary discipline, and herein lies the weakness and the lack of success by the general practitioner in this class of cases. Such patients must be convinced of the necessity of the rules of life prescribed, then taught in detail how these are to be carried out, and, most important of all, carefully watched from day to day until the prescribed measures are accurately and unswervingly followed out. It means the education of not only the patient but of the whole family, and this task devolves upon the physician.

The care of a tuberculosis patient consists in attention to minute detail, and success depends upon an accurate adaptation of principles to the individual case. "It should never be forgotten that it is the individual, not the disease, that needs treatment." The reason that the results of dispensary treatment have been wholly unsatisfactory is due to the lack of careful supervision, and the lack of the strict discipline maintained in sanatoria. "The difference between our (Pratt's) method and that of the tuberculosis dispensary gives a relatively small amount of care to a large number of patients, while we give a large amount of care to a small number of patients." This has been Pratt's effort. He has been supported financially by Emanuel Church (Boston) and since July 1, 1905, has taken care of fifteen cases of tuberculosis at an expense of $513.00.

The "class" should be small in number, not more than 25, so that the physician may know the intimate conditions of his patients' circumstances and surroundings. No one is accepted until the clinical diagnosis has been confirmed by sputum examination or tuberculin test. Cases are received in all stages. The applicant for treatment must promise to give up all work, lead the out-of-door life and obey all rules. It is impressed upon the patient "that the most profitable work for a sick man is to get well." A complete clinical history is taken and a physical examination recorded. Once a month the lungs and sputum are examined. The patient is visited in his home and it is determined whether it will be possible to carry out the open air treatment at that place. If there is no roof, balcony, piazza, or yard available, the family must move to a tenement where one of these is to be had. The exact financial status of the family is learned and instruction is given in the prevention of the spread of the disease to other members of the family. The patient is at first visited daily until it is certain that the rules are being faithfully and intelligently observed. The patient is placed in a protected balcony, or in a 7x7 foot wall tent on the roof or ground. Here he remains except for food, exercise (when permitted), and bath. The greater part of the day is spent in a recumbent or semi-recumbent position in a reclining chair which is furnished each patient. The food consists chiefly of milk, bread, butter, fruit and oil. Two or three quarts of milk are consumed by the patient. No exercise is permitted for several weeks. The walking is begun, five minutes morning and afternoon, and gradually more, the duration being controlled by the effect upon the body temperature. The walking is accurately measured by the watch. An important feature in enforcing discipline, and encouraging the patient to maintain it, is the use of an individual record book in which all the detail steps of the day's doings (bath, food, rest, exercise, pulse, temperature, quality or sputum) are entered. Pratt has been materially assisted in his supervision by a nurse who has given her entire time.

Scorbutus.

Senator (Berlin. klin. Wochenschr.) recites a case in detail with the blood findings and the postmortem findings.

The blood showed a rapid decrease of the erythrocytes down to one-sixth of the normal number, reaching 750,000. There was an equally pronounced decrease of the hemoglobin down to 11 per cent. There was also a gradual leucocytosis, with diminution ot the lymphocytes, a poikilocytosis, polychromatic degeneration of the erythrocytes, and normoblasts. These findings correspond practically to those noted in a single post-hemorrhagic anemia with a subacute or chronic course. In addition to the above a few myelocytes and myeloblasts were found.

The post mortem also revealed just such changes as might occur in severe hemorrhage and a high degree of anemia, without any specific characteristics.

In this case the anemia was due to the existing hemorrhage which characterizes the disease. The observation of the case throws no light upon the true nature of the disease. It is not known whether the disease is due to a primary affection of the blood, or the blood vessels.

Subcutaneous Injections of Sea Water in Athrepsia and Prematurity.

Potocki and Rene Quentin (Ann. de Gyn. et d'Obst.) describe the use of injections of sea water rendered isotonic by dilution with pure sterilized water, and injected in doses of from 10 c.c. in premature infants, to 30 to 60 c.c. in larger infants. He mentions six cases, which were not selected, some of them being in very bad condition when the treatment was begun. No other medication was used while the sea-water injections were in use. The water was obtained at a depth of ten meters, at a distance from the land, and was used within three weeks of the time it was obtained. If kept too long the water loses its physiological properties. It must be carefully diluted with sterilized water, and must not be sterilized in the autoclave. The results of the injections were marvelous. The cure was complete, the improvement beginning from the first injection. The loss of weight ceased immediately; symptoms of gastritis, enteritis, icterus, athrepsia and asthenia lessened at once. Weight rapidly increased. In one case a severe gastro-enteritis was relieved at once without recourse to diet or hygienic regime. No bad effects have ever been observed, nor has intolerance shown itself, or edema from retention.

'Paraldehyd" possesses many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehyd (see page xviii), which is an elegant preparation.

London has a hospital devoted to the treatment of ringworm which cost $1,000,000. Up to the present time but one patient has been brought to the institution.

Antiphlogistine

(Inflammation's Antidote)

Apply hot
and
Thick

Entero-Colitis, Cholera Infantum, Peritonitis.

IN acute inflammatory conditions of the intestinal tract Antiphlogistine" will be found of great value. It will not take the place of proper diet and internal medication, but by relieving the local congestion and soothing the nervous system, it will be found to be an inestimable adjuvant.

THE DENVER CHEMICAL M'F'G. CO.
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Malignant and Benign Degeneration of Uterine Myomas.

Winter (Zeitsch. f. Geb. und Gyn.) says that a simple myoma is an essentially benign growth. In his personal experience he met only with twelve cases of myoma with corporeal cancer, and only in four cases the diagnosis has been made previous to operation. Whenever a myoma presents uncommon symptoms such as bleeding after cohabitation, hemorrhages in the menopause, a sanguinolent, pinkish discharge, severe pain independent of menstruation, etc., a cervical cancer should be suspected and carefully sought for. There is no just reason for giving up supravaginal amputation of the myomatous uterus in favor of total extirpation for fear of a later cancerous degeneration of the cervix, which is left behind. This is a decidedly rare occurrence, only sixteen cases of this kind having been reported to date. The myoma seems liable to produce a predisposition for the development of a carcinoma, especially in the uterine body.

Sarcomatous degeneration, on the other hand, is not uncommon. Winter found sarcoma in 3.6 per cent of his patients suffering from a uterine myoma. Submucous myomas seem specially prone to undergo this malignant degeneration. It is interesting to note that out of his twenty-seven cases in only one was the diagnosis of sarcoma made previous to operation. The possibility of such a degeneration cannot be considered a valid argument in pleading for immediate extirpation of every myoma. The diagnosis of sarcoma is difficult and usually can be made only by means of a microscopic examination. Total necrosis of a myoma he encountered just as often as sarcomatous degeneration. It is a serious and dangerous complication of myoma. These cases very often are met with immediately after a childbirth, and this fact is of importance in the diagnosis of this condition. Poorly nourished myomas are most likely to undergo cystic degeneration, while chronic congestion leads to an edema of a myoma. The indications for operation of cystic myomas, in Winter's opinion, are identical with those which should be regarded as indications for operation on myomas in general, namely symptoms which call for operation, and the one most often encountered is hemorrhage.

Pernicious Vomiting of Pregnancy.

Williams (Johns Hop. Hosp. Bull.) divides this trouble into three varieties: reflex, neurotic and toxemic. The reflex is dependent upon the existence of abnormalities of the genital tract or ovum and may be cured by their correction or removal. The neurotic type depends upon the existence of a neurosis without demonstrable lesions, and is more or less allied to hysteria. It is the most frequent variety of serious vomiting and can be cured by suggestion or a modified rest cure. The toxemic type is associated with characteristic changes of metabolism and in fatal cases, at least, with lesions in the liver, analogous to those observed in acute yellow atrophy. It may be acute or chronic in form. In the reflex and neurotic vomiting there are no manifest changes in the urine, while the toxemic variety is characterized by a marked decrease in the amount of nitrogen excreted as urea and a characteristic increase in the amount excreted as ammonia. The toxemic type is diagnosed by examination of the urine, the reflex by careful bimanual examination of the genitalia, and the neurotic after exclusion of the other varieties. The prognosis is excellent in reflex and neurotic vomiting, provided appropriate treatment is instituted, so that the termination of pregnancy is rarely indicated. In toxemic vomiting, on the other hand, a fatal issue can be averted only by the prompt induction of abortion, and even then the prognosis is dubious.

Prognosis in Typhoid Fever.

Carl (British Medical Journal) discusses the prognosis of typhoid in relation to certain special factors, namely, the rate of the pulse, the agglutinative power of the serum, and the blood pressure. The author finds a slow pulse and a high agglutinative power existing contemporaneously are of favorable import, whilst the reverse of this (a quick pulse and low agglutinative power) is serious. The two factors, to have any significance, must exist together. A quick pulse with high agglutinative power may coincide with or indicate a bad attack. The two factors are independent. The blood pressure is as a rule only slightly elevated. In man it seems probable that the cardiac inhibitory centers are specially sensitive to the typhoid toxins, hence the slow pulse and the occasional presence of bradycardia in favorable cases of typhoid. In severe cases the normal sensitiveness of the vagus is more or less lost; hence the quickened pulse, cardiac failure and lower blood pressure.

Effect of Roentgen Rays on the Blood.

Linser (Deutsche Arch. fur klin. Med.) says that the x-rays destroy the leucocytes, especially the lymphocytes, in the circulating blood. As a result of this destruction of the leucocytes will follow. With this leucotoxin it is possible to immunize against leucotoxin. It is rendered inactive by a temperature of 51 to 60 deg. C., and can pass through the placenta into the fetal circulation. The rays may in an indirect way produce nephritis, but do not affect the red blood cells or the hemoglobin. Radium and the ultraviolet rays have no effect on the blood.

Syphilis of the Placenta.

Wallich and Levaniti (Ann. de Gyn. et d'Obst.) report the examination of thirteen placentas, with a view to determining the presence of spirochetes in the syphilitic placenta. In six of these cases syphilis was established by its presence in one parent or in the infant itself. In the others it was only suspected. The syphilitic placenta is very large and occurs most frequently in hereditary syphilis, or in an infection of some duration. The cotyledons are large and separated by deep sulci. It is pale in color and friable. There are changes in the villi; the mucous tissue is hypertrophied or edematous, with arteritis extending to all the tunics of the vessels. Spirochetes were found only in the placentæ from undoubted cases of syphilis. They were especially noticeable in a case in which the father had syphilis, the mother showed no signs of it, while the infant had pemphigus and died on the second day after birth. Spirochetes were numerous in the coats of the vessels on the fetal side of the placenta and in the mucous tissues of the villi. It is to be noticed especially that the spirochetes are perivascular as they are in the organs of new-born syphilitics and in chancres.

Dr. D. L. Peeples of Navasota, Texas, has been elected to the Chair of Surgery in the College of Physicians and Surgeons in Dallas, Texas. Our readers will recall two valuable papers from Dr. Peeples on the mosquito theory of yellow fever, in recent issues of the Journal.

CATARRH!

GERMILETUM is Really a Specific in CATARRH

That which has proven to be the ideal solvent and stimulating alkaline antiseptic is GERMILETUM, its persistent use twice or thrice daily, full strength, or diluted when the mucous membrane is sensitive, will effectually cure the worst advanced case of chronic nasal catarrh.

Dr. A. W. Latimer, late Physician to the St. Louis City and Female Hospital.

I have used GERMILETUM in many cases of catarrh. I consider it a most efficient remedy and really a specific in catarrhal affections.

Dr. A. U. Williams, Hot Springs, Ark.

I have used GERMILETUM in many cases of rhinitis with most excellent results. It is also the most efficient remedy in catarrhal affections.

Dr. E. W. Watkins, Washington, D. C.

I have used GERMILETUM in the most aggravated cases of catarrh and have cured some of the worst cases. I consider it as near a specific in catarrhal affections as can be.

Dr. A. Jordan, Nashland, Tex.

Nasal catarrh, which has long been an odium of medicine, may now be successfully combated by the alkaline antiseptic—GERMILETUM.

Dr. A. H. Ohman-Dumesnil, Professor of Dermatology in the College of Physicians and Surgeons.

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Literature Mailed on Application.

FREE—Buchanan's Book "Antisepsis" and "Antiseptics," 352 pp.
Full Size Bottle of GERMILETUM Free to Physicians, they Paying Express Charges.

DIOS CHEMICAL CO., - - - - St. Louis, Mo.

Concerning the Origin of Tuberculosis in Infancy.

Schlossman (Archiv. f. Kinderh). takes the stand, based upon his exhaustive experimental and pathological studies, that in early childhood the origin of tuberculosis, must be considered enterogenous rather than aerogenous, that the infection occurs through the gastroenteric tract, from the oral to the anal orifice, and the tonsils and nasopharynx are regions of special importance.

The author's experience has shown that directly inherited tuberculosis must be more common than has hitherto been supposed, though there can of course be no question that for the vast majority of cases the infection must occur in extrauterine life. Although he insists upon the alimentary origin of tuberculosis in childhood, he does not believe that this infection occurs through cow's milk as has been insisted upon. Incidentally it may be noted that he denies that Behring ever took this stand himself, and maintains that a careful reading of Behring's writings on the subject will show that he has merely insisted upon the alimentary origin of the disease in the vast majority of cases in childhood. without insisting that the germs are carried in the milk itself.

He denies that alimentary origin of tuberculosis necessarily presupposes that tuberculosis of the intestinal tract must be the primary lesion. He admits that primary intestinal tuberculosis is rare in infancy, but maintains that this in no wise affects his theory, in that it appears proven that tubercle bacilli can penetrate the healthy mucosa of the gastrointestinal tract without the production of local lesion of any sort.

The bacilli pass through the intestinal canal, through the regional glands (even in the glands local lesion is not necessarily set up), get to the thoracic duct through the lymph stream. thence into the right heart and so into the lungs. Through the lung lymph capillaries they get to the bronchial glands, which are particularly prone to tubercular infection (Why the bronchial glands should immediately be affected when the bacilli pass through the mesenteric glands without affecting them is not explained. --Ed.)

As against the aerogenous origin of tuberculosis, Schlossman cites the fact that he never has been able to find primary lesions of the trachea or of the larger bronchi, and that in thousands of sections, he never has been able to demonstrate the bacilli in the alveolar spaces of the lungs. If as the adherents of the inhalation theory would have us believe, it is easy for the tubercle bacillus to get directly to the lungs, one ought to be able sometimes, to demonstrate the bacilli in the aveolar spaces.

It is not possible within the space of an abstract to give all the points of the discussion, at any rate it marks a most interesting contribution to this most important subject, from one of Germany's foremost pediatrists. It may be noted that Schlossman says, that he was formerly a firm adherent of the inhalation theory, that his study of the subject has convinced him that he was formerly in error, that according to his view the weight of evidence at this time would speak most strongly for the alimentary origin of tuberculosis, in the sense that the bacilli are swallowed, getting to the respiratory tract secondarily.

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Epidemic Cerebrospinal Meningitis and Posterior Basic Meningitis.

Hildersheim (The London Medical Lancet) reviews the bacteriological findings and concludes that: Even though a potentially pathogenic organism is found in the cerebrospinal fluid we cannot be certain that it is the cause of the disease. There are earlier accounts of posterior basic meningitis than of the epidemic disease. More than half the cases of basic meningitis are in infants under one year of age. The posterior basic cases run protracted courses, while the epidemic cases are acute. He finds no account in the literature of epidemic meningitis of amaurosis without optic neuritis, a remarkable feature of the basic form. Optic neuritis is common in epidemic meningitis and rare in posterior basic meningitis. Skin lesions are much less common in posterior basic meningitis than in the epidemic.

Hematoma of the Ovary.

Smallwood Savage (Brit. Gyn. Jour.) says that this condition occurs in the first half of menstrual life; it tends to be bilateral and not to be associated with gonorrhea or tuberculosis. It may be caused by certain forms of septic infection, but more evidence on this point is needed. The onset may be acute, but the pain becomes chronic and is located in the lower abdomen. Menstruation is not affected, though there may be slight menorrhagia and dysmenorrhea. There is marked disorganization of the ovary, converting it into a firm, non-collapsible shell of ovarian tissue of varying thickness, due to edema and interstitial extravasations of blood. Broad adhesions to surrounding parts are always present, being an indication of inflammation of a more or less severe nature. The Fallopian tubes often show gross changes. The writer divides this disease in two classes, hematoma of the Graafian follicle and hematoma of the corpus luteum. The first class results from a multiple and premature ripening of Graafian follicles due to an increased amount of blood in the ovary. An outpouring of blood takes place into these follicles from the vessels of the theca interna, so that the cysts unite, and being immature the normal retrogression of the follicle does not take place and a blood cyst remains. Class two is due to hemorrhage occurring during the retrogression of the Graafian follicle. The lining may show either fully developed or retrogressive lutein cells or else a fibroblastic tissue that has displaced or is in the process of displacing them.

Ecthol is an agent that is gaining great popularity by reason of its wide range of usefulness. It contains the active principle of echinacea which is an old remedy. A recent number of the Chicago Year Book states that the prompt results gained from it have caused all writers to express themselves with such apparent extravagance as to really retard the introduction of this agent to the profession at large. In summing up, the statement is made that "it will yet establish for itself, by its inherent valuable therapeutic properties, with the entire profession a fixed and permanent place." Ecthol is anti-purulent and a corrector of all dyscrasia of the fluids. It is used locally and internally. The dose is a teaspoonful four to eight times daily. It is useful in Septicemia and all cases of blood poisoning from whatsoever cause. It is excellent for erysipelas, carbuncles, abscesses, boils, sores, ulcers, gangrene and a gargle in diphtheria and putrid sore throat.—W. T. Marrs, M. D., in the Medical Summary.

Deformities of the Chest in Children.

Theodore Fisher (Brit. Jour. Child. Dis.) mentions the fact that at birth the shape of the chest is almost circular and respiration chiefly diaphragmatic. After describing the vertical and horizontal grooves due to rickets, the writer speaks of flattening of one side of the chest as usually caused by neglected pleural effusion. This deformity in young children, as well as the grooves due to rickets, may disappear, as is shown in some of his own cases. The "barrel chest" results from asthma as in adults, and in some cases of cardiac hypertrophy there is marked bulging of the precordia. This is often associated with adherent pericardium. Lateral curvature with its typical chest deformity may result from bad habits of sitting or from empyema. Bulging of the intercostal spaces in empyema is very rare and probably occurs only when the intercostal muscles are much weakened. An apparent bulging may be due to edema of the skin.

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The Medical Times and Register.

Philadelphia, Pa., July 13, 1906.

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Gentlemen:—

I am in receipt of your favor of June 21st, also an 8 oz. bottle of Uric-Antagon. I had a patient suffering with neurasthenia who complained of pains and aches in all portions of the body. I was impressed this was a case that indicated the use of Uric-Antagon, so gave her the 8 oz. bottle, which she used with the most satisfactory results. Yours truly,

(Signed) J. R. CLAUSEN, M. D., Editor.

Philadelphia, Pa., July 19, 1906.

The Anti-Uric Co.,
Peoria, Ill.

Gentlemen:—

In reply to your letter of the 16th inst., will say that I have no objections to your using my letter in any medical journal.

Please accept my thanks for the bottle I received from you today. Yours truly,

(Signed) J. R. CLAUSEN, M. D.

According to Matin, a Paris newspaper, Professor Behring is about to deliver to clinical surgeons his latest remedy against tuberculosis, which he calls "tulase." He recently communicated his discovery at Hamburg to an audience composed solely of members of the State institution. The professor can not say that the new remedy has been sufficiently tested to be put in the hands of ordinary practitioners, but clinical hospitals will receive it free of charge on demand. The new remedy is introduced into the system by subcutaneous injection or by swallowing.

A Conscientious Patient.

"Medicine won't help you any," the doctor told the patient. "What you need is a complete change of living. Get away to some quiet country place for a month. Go to bed early, eat more roast beef, drink plenty of good, rich milk, and smoke just one cigar a day."

A month later the patient walked into the doctor's office. He looked like a new man, and the doctor told him so.

"Yes, doctor, your advice certainly did the business. I went to bed early and did all the other things you told me. But, say, doctor, that one cigar a day almost killed me at first. It's no joke starting in to smoke at my time of life."—Everybody's Magazine for August.

No sooner had the doctor left his office than a man rang the bell. The patient was very much disappointed that he had missed the doctor. The good wife, telling one of those lies of which the recording angel keeps no record, assured the man that the doctor would return in a few minutes. After a short time the patient remarked it might not be necessary for him to see the doctor personally as he only wanted to pay a bill. Would she give a receipt for the money? The stranger was relieved to learn it would not be necessary to wait for the doctor, and produced a check, which he handed to the delighted wife, saying at the same time that he had forgotten to bring the bill with him. The amount, he told her, was thirteen dollars. Would she make out another bill? Certainly she would. After receipting the bill she glanced at the check and noting that it called for twenty-five dollars, she gave him twelve dollars in greenbacks, in change, to make up the difference. When the doctor returned from making his morning visits he wearedly informed the unhappy wife that he had never treated the man who had given the check, and that when she had accumulated a sufficient quantity of such collateral she would be able to dispose of it, as waste paper, at the rate of a quarter of a cent a pound. And thus ended one of the tragedies of a doctor's life.

A German physician has determined that bacteria are not always harmful, but on the contrary are a necessary adjunct of food. He experimented on five new-born chickens, feeding them on sterilized food. Though they ate more than some other chickens which were fed in the ordinary way, they lived only from eleven to twenty-nine days. While digestion seemed normal the chickens did not increase in size. To a number of the chicks, which were rapidly losing strength on a sterilized diet, the doctor gave a preparation containing the germs usually found in the intestinal canal of the fowl, and the chickens at once began to improve in strength and weight.

Dr. Alonzo A. Sylvester, the American who for twenty years was Emperor William's dentist, was a well-known figure in Berlin, says the Brooklyn Medical Journal, and in spite of his German associations prided himself on his American birth, and flew the stars and stripes on his household daily. Emporor William, it is reported, always saluted the American flag on passing the dentist's residence.

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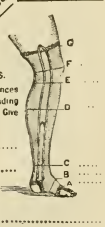

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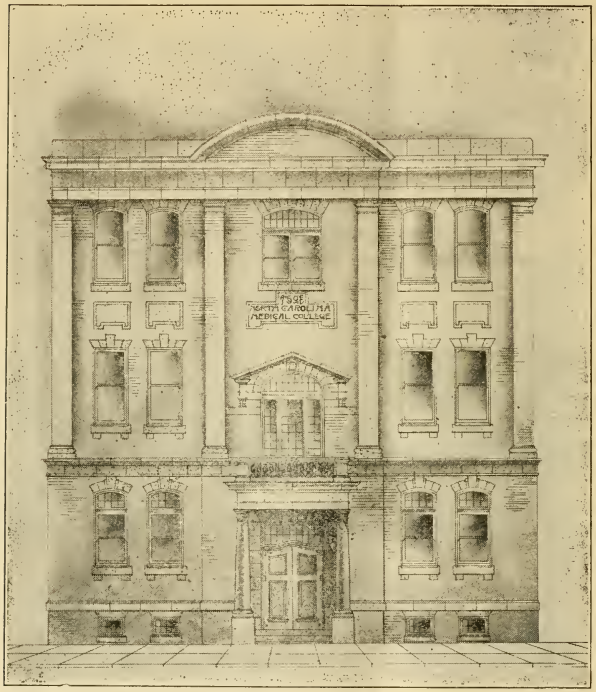

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The Relations Existing Between the Upper Air Passages and the Lungs.*

By R. V. Brawley, M. D., Salisbury, N. C.

The question of nasal obstruction, adenoids, and enlarged tonsils has been brought very frequently before the profession for the past few years; but, far too little attention has been paid to their relations with the deeper air passages. The relation between chronic catarrh of the upper and the deeper air passages has not received the attention it deserves; it is barely mentioned in the most general terms in connection with bronchitis, and the possibility of emphysema, bronchiectasis or fetid bronchitis, being due to such causes, is usually ignored.

When we consider that the upper air passages, comprising the nose, pharynx, and larynx, present a canal lined in its entire extent, except where the respiratory and the alimentary tracts cross each other in the pharynx, by mucous membrane covered with ciliated epithelium, and that they imperceptibly merge one into the other without the interposition of a sharp line of demarcation, we can readily understand how pathologic changes in any portion of the upper air passages are not sharply limited in their local effects and ultimate consequences to a circumscribed area; but, on the contrary, they display a peculiar descending character.

To better understand, let us review the physiologic significance of the air passages in the act of respiration. They are not merely canals for the transmission of inspired air; for, as each segment has a special function of its own and contributes to the preparation of the air for reception in the lungs, this function cannot remain in abeyance without detriment to the organism.

The air, upon entering the nose, first meets with resistance by striking the vibrissae lining the inner margin of the nostril and which acts as a coarse filter to arrest the larger particles of deleterious matter that might gain admittance.

The nasal cavity being narrow and irregular, there is a deflection of the air current which necessitates a certain amount of friction between the air and the walls of the cavity. In consequence of this friction and these narrow and complicated passages the dust particles suspended in the air current are brought in close contact with the mucous membrane and stick fast to its moist surface, later to be swept out by the outward current of the ciliated epithelium. The abundant supply of blood vessels in the nose, and the property possessed by them of changing their volume, enable them to adapt themselves easily to the outside atmospheric changes and to warm the inspired air to temperature of the body. To enable it to supply the required amount of moisture the nose is endowed with an abundant supply of serous and mucous glands, and an extensive system of lymphatics which relieve the bronchi and lungs of an onerous duty. This duty falls on them to a much greater degree if respiration is performed through the mouth. Its secretions retard the growth of most bacteria and prevent the development of others. In addition to these functions, the sense of smell serves to protect the organism by testing the inspired air and guarding the lungs against substances which can be recognized by their odor. And, by bringing the sneezing reflex into action, it rids itself of coarse particles of matter which might otherwise gain admittance.

Now, when the air reaches the pharynx and larynx, after having passed through the nose, it has undergone the necessary preparatory changes for its entrance into the lungs and needs no further alteration. However, should any particles of dust enter the larynx with the inspired air, they are promptly swept out by the ciliated columnar epithelium.

But, what takes place if the respiratory air current cannot make its way through the nose? Is the oral cavity capable of supplying the functions of the nose in preparing the air for respiration? The width of the oral cavity is such that the air current encounters no resistance, and consequently its progress is not retarded, as it is in the narrow nasal passages, and no time is afforded for purification and saturation. The less abundant blood supply, and the absence of cavernous tissue; the absence of an abundant watery secretion in the oral cavity; the nature of the epithelium in the mouth, which is of the squamous variety, and, therefore, incapable, in contradistinction to the ciliated epithelium of the nose, of removing automatically any deleterious substances in the air current—all these structural differences combine to make the mouth unfit to supply the air current to the lungs.

The evil effects of this mouth breathing first manifest themselves in the mucous lining of the pharynx and larynx, which become dry because the air has not been

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properly prepared and saturated. Dust particles are first deposited on the mucous membrane of the mouth and oral pharynx —which is covered only with squamous epithelium—and later make their way into the larynx and deeper air passages. The constant irritation of the dry and unpurified air coming in direct contact with the mucous membranes of the pharynx and larynx, gives rise, as we can readily understand, to chronic catarrhal conditions. So the bronchi and lungs may be materially affected by a disturbance of the physiological action of the nose.

The most frequent cause of nasal obstruction, especially in children, is hypertrophy of the lymphatic elements in the post-nasal space. And, in these cases of adenoids—in the bad cases, for example, those occurring in scrofulous children—there is a constant out-pouring of a secretion consisting of imperfectly developed epithelial cells, white cells, mucin, and germs beyond number.

These are poured off in quantities from the surface of the diseased lymphatics, all of which may infect the larynx and trachea. This, coupled with the evil effects of mouth breathing, render these children prone to become the subjects of not only catarrh of the nasal cavity, but also of recurring pharyngeal and laryngeal catarrh, and of acute bronchial catarrh; while, if the condition continues, they usually develop chronic bronchitis, which can be permanently cured only by restoring nasal respiration.

Mouth breathing is, however, not the only percursor of chronic catarrh in the deep air passages; the condition frequently develops as a sequel to pathological alterations in the nose itself, provided they are sufficient to render it unfit to afford the necessary protection to the lungs.

In suppuration of the nose or its tributary cavities we have a constant trickling down of pus from the naso-pharynx into the deeper air passages, producing a set of symptoms, including depressed nutrition and occasional elevations of temperature which is often mistaken for phthisis. And in these cases it is not always a question of irritation and cough alone, but a genuine and specific infection from above, as is shown by the fact that a profuse purulent discharge can be seen bathing the larynx and clinging to the walls of the trachea, similar in every way to that found on the back of the palate and oozing from the posterior nares.

Diseases of the lungs may owe their origin to direct extension of diseases of the upper air passages to the trachea and bronchi. In genuine ozena, or atrophic rhinitis, an atrophic process in the mucous membrane, shared to some extent by the skeleton of the nose, so that the turbinated bones are often destroyed, and the nasal cavity attains enormous dimensions. The atrophy affects the glands and the erectile tissue, partly destroying both structures, but does not extend to the blood vessels which on the contrary, according to recent investigators, become dilated. At the same time the ciliated cylindric epithelium is converted into horny squamous epithelium, giving the mucous membrane a dry, cicatrical appearance, which in the later stages also extends to the pharynx and larynx after the atrophic process has reached these parts. The disease is regularly accompanied by the secretion of a tenacious material, which dries, forms crusts, and gives off a characteristic, penetrating odor. The discharges make their way into the pharynx and larynx, and thence into the deeper air passages, where they may set up chronic irritative conditions. In these atrophic conditions of the nose, coupled, as they are, with metaplasia of the epithelium, foreign bodies contained in the inspired air cling to the walls of the cavities, and eventually penetrate into the deeper air passages. In examining persons afflicted in this way, whose work obliges them to breathe impure air, a mere inspection of the nose, pharynx, and larynx shows the dust particles, whether mineral or vegetable, as, for instance, coal dust and flour, clinging to the mucous surfaces, and it is easy to understand that these dust particles may be carried down with the inspiratory blast and settle in the bronchi. Such morbid changes must necessarily favor the development of the various forms of pneumokoniosis, especially anthracosis and chalicosis.

In a paper by Sticker, he has shown that, aside from the fact that diseases of the lungs may be caused by diseases of the upper air passages, there is a general condition of which the atrophy of the mucous membrane is merely the superficial expression, and this he has called "Xerosis of the mucous membranes." This condition eventually leads to a widespread and more or less complete atrophy of all the mucous membranes of the body, and, as old age comes on, to a progressive increase in the size of the nasal and post-nasal cavities, the larynx, the trachea, the bronchi, and, finally, the lungs. The tendency of the finer bronchioles to a dry catarrh, leading to simple increased volume and pulmonary emphysema, is interpreted by Sticker, as an expression of the general xerosis which primarily affects both the upper and lower air passages.

Theison found out of forty cases of ozena fourteen cases of pulmonary tuberculosis, truly a remarkable percentage and certainly suggestive of something more than coincidence. And he comes to the conclusion

that "The large number of ozena patients having pulmonary tuberculosis would certainly point to the nasal condition as a strong predisposing cause for the development of the tuberculous condition."

Disturbances of the sensibility and of the reflex activity of the pharynx and larynx have an important bearing on the lungs and bronchi, as they facilitate the development of inspiration pneumonia. If there is anesthesia of the pharynx and larynx, and the cough reflex is diminished, it is easy for particles of food to enter the larynx; and, when from anesthesia of the larynx the glottis fails to close, and there is no reflex cough, the offending body readily finds its way into the lower air passages. Hence, an inspiration pneumonia frequently complicates nervous affections, which, like diphtheria, are accompanied with disturbances of sensibilities, or, like bulbar diseases, with loss of reflexes.

More attention should be paid to diseases of the upper air passages in their relation to diseases of the deeper air passages; in fact, it should be a part of the routine examination on the part of the physician to ask the patient if he can breathe with his mouth shut, if one or both sides of his nostrils are not occasionally blocked, if he can smell or taste, and if there is any discharge from the nares. If this were done thoroughly a good many mistakes in diagnosis would be prevented, and many patients saved from much unnecessary suffering.

Immediate and Remote Influences of County Medical Organizations.*

By Dr. J. C. Grady, Kenly, N. C.

Mr. President, and Gentlemen of the North Carolina Medical Society:

I desire to call your attention to the apparent splendid results that our county organization has already accomplished throughout the State, as manifested by the largely increased attendance at this meeting of our State Society.

Heretofore, as many of you know who are familiar with the circumstances, the main body of the work done at our State meetings has been performed by a few of its most zealous members, who deemed hardly any sacrifice too great which would enable them to attend the regular meetings of the State Society. And this class of its membership have been carrying almost the entire burden of the Society work on their shoulders to the shame and to the detriment of many other equally competent men, who through carelessness, diffidence, lack of zeal or something else have stood off and contented themselves with being mere spectators and figure-heads, while some have not come at all; and others still have allowed their membership to lapse from nonpayment of dues, their names to be dropped from the register, and have become non-affiliates and back numbers in the profession, thereby losing much of their social and political influence as physicians in the profession and society at large. Now, this condition of things is wrong and should not exist. It is not only a hurt to the individual medical man himself, but to the profession as well. For a non-affiliated medical man is to the practice of medicine about what a black-sliding church member is to the church and the principles for which it stands, a hindrance, a demoralizer, a draw-back and a positive disgrace.

Because the medical profession, in order to wield its greatest influence for the profession itself and Society at large, should stand together on all questions medical, if they would merit and retain the esteem and confidence of the general public and subserve their own highest good; and not allow themselves to be torn asunder by petty jealousies into contending factions, nor suffer themselves through carelessness in attending their State and county meetings to become non-affiliates and back numbers in their profession.

For "as iron sharpeneth iron" so also does medical association sharpen our medical wits; and I am exceedingly gratified to note that this condition of things is rapidly passing away; and I believe the change has been wrought largely through the instrumentality of the organized county Society, and the State Society's newly inaugurated policy of sending out special invitations to each individual county member to prepare a paper of some kind or participate in some way in the exercises of each State meeting. To the end that each member may become personally interested in the doings of the Society and feel that his presence is necessary for other purposes than simply to stand up, vote, and be counted; each member should feel that the State Medical Society is as much his as any one else; and, the members from the rural districts, the country physicians, should be induced to feel just as much interest and take as much part in the proceedings as their more fortunate and perhaps better equipped city neighbors.

For it is indeed to the country physician who does a general practice that we must ever look for that conservatism in medicine which acts as the great balance wheel to medical progress, and keeps the pendulum of medical thought from swinging too far in one direction. For the field of specialism, while filling a very important niche in the

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medical structure, offers a very favorable soil for the propagation and growth of the faddist and medical extremist. Many of our most important and useful inventions and discoveries have been wrought by men who at the time occupied the lower walks of the profession. Conspicuous among such characters are Jenner, Harvey, Lister, Smith, Sims, and a host of others too numerous to mention. Therefore, it is evident that no matter what rank or position we occupy in the profession, we should never feel discouraged; for it is our imperative duty to do the best we can under any and all circumstances with the talents God has given us and the means at our command, as we shall be judged not according to the number of our talents, but for the proper or improper manner in which we have used the ones we have. And it behooves us under any and all circumstances to do the best we can. And after having done this we, from a standpoint of duty, have done as well as anybody, even "angels could do no more"; and we should be satisfied with ourselves, and others should be satisfied with us; as it is neither possible nor expected that we should all be Bilroths, McGuires, Pasteurs or Oslers; yet, there is a sphere in which each one of us can operate, and if we fill that sphere creditably and according to the best of our ability nothing more is required at our hands.

"Honor and fame from no conditions rise,
Act well your part, there all the honor lies."

President Lincoln's motto "In union there is strength" is just as pertinent to the medical profession today as it was to the American Union in 1865; the axiomatic truth of which declaration we all saw demonstrated in our war between the States. Had our then cherished idea of secession and dissolution of the Union so hotly and so nobly contended for our Brave Heroic Fathers prevailed; had the success of the Confederate arms prospered at Gettysburg and Appamattox, and had the union of the states been broken up, we, perhaps, would never have witnessed the splendid achievements of our army and navy in Havana harbor and Manilla bay; nor today be classed as the Great Power we are among the nations, the wonder and admiration of the civilized world and the leader in all International thought.

And from this far reaching and world renowned incident, we as Physicians may glean a wholesome lesson on organization and professional unity, because principles remain ever the same.

Some of our ministers define religion as "the church at work," and if this be true, it is no less true that the best definition of medical progress, is the whole medical profession properly organized and aroused to the great possibilities and opportunities which are theirs, should they arise to the highest and fullest measure of professional success attainable.

Therefore, we must awake from our stupor of indifference and shake off the nightmare of legarthy and laziness and aspire to greater and grander things.

So many problems are yet unsolved, so many fields unexplored that are ripe for the sickle of medical discovery, and so many battles are yet to be waged against disease, inviting the medical science to the conquest, that the young men, the old men and the women of the profession should buckle on their weapons of warfare and investigation, and hasten to the conquest. Each local Medical society should if possible, have its chair of Microscopy, Bacteriology, Chemistry and Materia Medica, Pathology, and Toxicology; and each county Society should vie with its neighbor in its zeal for medical research and scientific discovery. Tuberculosis, the unconquered scourge and enemy of the race, epilepsy, cholera, cancer, leprosy, and many other diseases are still abroad in the land, and the people are looking to us for their prevention, suppression and cure. And how much more creditable it will be for us as physicians to lay down our little petty jealousies and animosities and professional bickerings and come together in our county Societies as a determined band of earnest investigators and brothers, working together in perfect harmony and mutual helpfulness in the noble cause of annihilating disease and ameliorating the sufferings of the race; and thus forever wipe from the fair name of our profession that foul stigma that has somehow fastened itself upon us as being the most jealous of the professions.

Our Societies should migrate over each county; our meetings should be somewhat of a public character, and our subjects of discussion should be made known through our secular papers, that the character of the work we are trying to do may become common knowledge and that we may disabuse the laity's mind of the erroneous idea that medical Societies are a species of medical trust, as some secretly believe and as others openly avow, organized for purposes of personal aggrandizement, class protection, political preferment and revenue only.

We should act and talk in such a way that the people may not become prejudiced against us, but made cognizant of our zeal and honesty of purpose in the promotion of medical science, the uplifting of our profession and the betterment of mankind: to the end that they may at any and all times be ready and willing to help us in securing

such needful medical legislation as may be necessary for the furtherance of science and the highest good of society.

But I am constrained to think before we can induce the people to become in harmony with us we must get in harmony with ourselves and forever put an end to such disgusting and disgraceful scenes as that of a doctor trying to gain the ascendency over his competitor by ridiculing, back-biting or belittling his predecessor or his treatment. Such conduct is not only unethical and uncalled for, but in every way unbecoming a true, high-minded physician, and frequently reacts with disastrous effect upon the individual himself, the laity generally being shrewd enough to see through this veneer of pretended superiority, and discover the hidden jealousy beneath, so that we often see "Haman executed upon the same gallows he had erected for Mordecai."

As I have said before, it is a matter of regret that the medical profession has acquired for itself among the laity at large the reputation of being the most jealous of the professions, and I am sorry to have to admit that the physicians themselves are largely responsible for this very deplorable state of affairs, oftimes by their own unguarded and imprudent speech, and oftimes by giving heed to a tattling, meddlesome clientele, who have always an axe to grind at one or another doctor's expense.

Most of you who have practiced medicine long are aware that in almost every community we have a class of individuals very aptly described by the name of *dead beats and suckers*. who prey upon first one physician and then another, as they locate in their communities, and pay for their medical services by keeping up a perpetual warfare between the doctors in that community by a very adroitly planned schedule of flatteries and denunciations, and the repetition from one doctor to the other of derogatory statements, purporting to come from the other doctor, whereby the doctors and the whole community are kept in a constant state of unrest and disturbance to the great delight and sometimes advantage of these scheming suckers.

Some of you, no doubt, have been up against just this kind of a character, and have felt non-plussed as to how to meet his merciless attacks, but thanks be to the medical (Gods) we have found a panacea, a certain specific, against this very annoying medical pest in the shape of our county Society and black list; in other words *Medical Organization*. And if the doctors will stand together in our county Societies we can forever rid ourselves of these heartless and ungrateful suckers, who have preyed too lavishly upon the bounty and energies of the profession all these years.

We must assemble ourselves together oftener and keep in closer touch with each other, meet each other face to face, talk to each other heart to heart, visit each others' offices, get a better understanding of each other, learn more fully that our interests are mutual and interdependent, that none can injure his neighbor without injuring himself, and that we all, like the links in a chain, are (or should be) linked to our fellows, if we would fulfill our highest destiny as physicians, remembering the scriptural injunction that "a house divided against itself shall not stand"; and until we do this our profession can never rise to that high plane of usefulness and dignity to which it justly belongs.

I can see in my own county Society already that this improved spirit of professional courtesy and brotherly love is beginning to permeate, and leaven the whole lump.

Men who before the organization of the county Society would hardly speak to each other on the street, much less meet each other at the bed-side in consultation, are now the best of friends and on the best of terms; and all due to nothing else in the world than a better acquaintance with each other, brought about through the agency of the county Society; and on every hand is noticeable this improved spirit of material and fraternal advancement in every department of our work. Especially is this the case with the quality and number of papers produced and the discussions evoked at the county meetings; each member seeming to enter into the work with more spirit and zest than formerly. And in the matter of regulating *professional fees*. insurance and otherwise, there seems to be a growing tendency toward conformity, which item alone, if carried out properly, will more than compensate us for all the trouble and expense of our Society.

On every hand we see unmistakable evidences of a grand stride forward along ethical, material and scientific lines.

So much has the conditions improved in our Society during its official existence that it is not altogether speculation to predict that in the very near future to be a member of a live, wide-awake, up-to-date county Medical Society will be almost equal to taking a regular post-graduate course.

Each year we must see to it that some one from each Society spends a few months in special training, to the end that they return to the Society and give those who could not go the benefit of their increased knowledge and newly acquired medical skill; and we should have our Society re-enforced from

year to year with one or two new men from some first-class post-graduate institution, thereby keeping us and our Society in close touch with all the latest improvements in medical science at little cost and untold benefit to ourselves and patients, making us as faithful laborers for the people worthy of our hire.

And, unless I misinterpret these influences and the signs of the times, it will not be another decade before we as physicians shall have attained to a much higher degree of proficiency in the science and art of healing the sick than we enjoy today, and all because of increased zeal, greater concentration of efforts, improved methods of investigation, a closer acquaintance with each other, and a more thorough and complete organization along all lines, brought about by the official county society.

Acute Articular Rheumatism.*

By Dr. E. C. Boyette, Mt. Holly, N. C.

Acute articular rheumatism, or rheumatic fever, is of graver import than usually considered by the laity, and is relegated by many practitioners to a place of inferiority in the catagory of diseases. The frequency with which we come in contact with rheumatic fever in the children's wards in the hospitals of our larger cities, and the severity of some of the complications, alone, is sufficient reason for special study of this painful disease, and the instituting of a watchful care against its inroads.

The word "rhematism" is very misleading in its meaning, on account of its general use by the laity and some physicians in expressing every disease which manifests itself by fever, pain and swelling in the muscles as well as in the regions of the joints.

From the Greek word "Reo" (I flow), we have one of the oldest theories of physicians regarding the appearance of morbid processes in the body. "The flow of spoiled fluids from the brain to other parts of the body, the external excretion of the same from mucous membranes, (catarrh), was looked upon in antique medicine as the principal cause of disease."

In the course of time medicine, like other sciences, has changed, until this view has been contracted and is now used to designate more distinct groups of diseases, and hence we have rheumatic, referring principally to diseases characterized by pain, which may or may not have a distinct inflammatory phenomena. On account of these things following draughts, wetting or pronounced refrigerations, many morbid conditions have been designated rheumatic.

These expressions "rheumatic," "rheumatism," etc., have been used in a symptomatic, as well as in an etiological sense, is why we have so much indefiniteness among the medical profession of today, and the sooner we eliminate this general, meaningless expression from our minds, the sooner we will be able to classify the morbid conditions present, and assign them their proper places in the catagory of diseases.

In this paper I wish to refer to rheumatism only as an acute infectious disease, characterized by pain and swelling of multiple joints. It is due to a specific microorganism, and I think the time will soon come when the physicians will recognize no such thing as chronic rheumatism.

If we examine closely the different cases coming to us with a diagnosis of rheumatism, it will be noted without difficulty that important differences exist, which will permit of the arrangement of the morbid conditions present into quite well known pathologico-anatomical groups.

For example, a woman comes to us complaining of rheumatism in the arm and neck. She has a cyanotic appearance, possibly due to circulatory disturbance arising in the heart. Upon examination of the affected arm we find normal joints, no swelling anywhere, but upon certain active or passive movements there suddenly appear severe pains, radiating toward the hand or back of neck. If we follow the course of these pains we will find upon the ridge of the shoulder, upon the arm, or upon the clavicle, that there are quite distinct areas which show exceeding sensitiveness upon pressure. These points correspond to certain areas in the course of certain sensory nerves, and on account of this, as further examination shows, we have a neuralgia, which is possibly favored and maintained by the circulatory disturbance, instead of rheumatism as was supposed by the patient.

As a further illustration, another patient complains of severe pains in the region of his knee and ankle joints, (which he attributes to change of the weather), the severity of which may compel him to take to bed, but they soon become less severe and he is out and walking about again, but the peculiar gait is conspicuous. He throws his feet forward to an unnecessary degree, and in bringing down the heel he expends just as much unnecessary force.

In this we recognize an ataxic gait, and know that it is an important symptom of tabes dorsalis, an affection of the spinal cord. Though the disease seemed influenced by refrigeration, though the pains were in the region of the joints most often affected

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in rheumatic fever, we have an entirely separate and distinct pathological condition, demanding entirely different treatment, which without due precaution could easily have been designated acute articular rheumatism.

Besides these, gonorrhoeal arthritis and syphilitic periostitis could in this connection be illustrated, but will refer to them more especially under differential diagnosis.

Etiology.—It is, therefore, seen that acute articular rheumatism, or rheumatic fever has much similarity and some connection with other diseases which are due to infection, which, heretofore, was looked upon as a prototype of a malady produced by refrigeration.

For several years American and English physicians have noted the frequent occurrence of rheumatic fever after an attack of tonsillitis. And more recently, the German physicians have noted the association of angina tonsillaris with acute articular rheumatism.

These observations have been so frequent in recent years, until we naturally look for tonsillitis as accompanying or preceding rheumatic fever. As far back as 1888, Whipman in his collective investigations for the British Medical Association, speaks of tonsillitis as being the primary affection preceding acute articular rheumatism.

Recently, Fritz Meyer and Menzie by injecting into animals a culture of streptococci obtained from a case of tonsillitis, produced a clinical picture similar to that of rheumatism in the human. With the certainty that rheumatic fever is an infectious disease, without the knowledge of how or the points of infection, leaves an important field for future investigation by pathologists.

But with the knowledge that it is an infectious disease, due to a specific organism, and the frequency with which tonsillitis has been observed to be associated with it, leads us to consider the tonsil as the most suitable field for entrance of the bacilli.

The peculiar cavernous structure of the tonsil, and the fact that the enveloping epithelium is partly desquamated, by being encroached upon by leukocytes, producing a sort of empty space by dilating the spaces between the epithelial cells, forms an especially fertile field for the colonizing of bacteria.

We, therefore, when the tonsil is in an inflamed and swollen condition, have the power of resistance weakened, thus preparing a port of entrance for the bacilli, which then would increase in the blood and produce inflammatory processes in areas or tissues most susceptible to their actions.

The true nature of the micro-organism, producing acute articular rheumatism, is yet unknown. Recently two French pathologists, (Triboulet and Coyon), have isolated a bacillus which they call bacillus rheumaticum, but is of too recent date to accept as the specific micro-organism of rheumatism.

Morbid aptitude varies considerably with different races. We not only have this susceptibility in infectious diseases in different races, but certain families of the same race show predispositions and immunities no less remarkable.

Just as the Malay is more susceptible to small-pox, or the negro less susceptible to yellow fever, we have the Caucasian more likely to have acute articular rheumatism. Just why this is so we are not able to explain. It seems to be most frequent in the temperate climates, and seldom occurs above certain altitudes. It is not recorded as occurring in the tropics or in the arctic regions.

Although acute articular rheumatism may occur in any period of life, it is especially a disease of adolesence, most frequent before the age of twenty-five, and seldom in children under five; but endocarditis and pericarditis are more likely to occur as complications in children than in adults.

Among the predisposing causes, sudden refrigeration seems to play an important part by driving the blood into the abdominal vessels, producing pulmonary anaemia. Therefore, in countries where we have the greatest and most sudden changes of weather is where we have the most weakening of the power of resistance and likelihood of microbic infection.

This influence, however, is limited to the preparation of an already predisposed individual for microbic infection by lowering general or local vitality. Hereditary predisposition seems to exist in some families, especially those of a pale, chlorotic condition, and one attack predisposes to another.

Aside from the tonsil, any other part of the body with an abrasion exposed to the external air is suggested as a possible means of entrance of the micro-organism peculiar to rheumatic fever. But most of these etiological factors are as yet mere conjectures.

The only part that we are certain about is that it is an acute infectious disease, due to a specific micro-organism, which enters the system at some point and produces pain and localized inflammatory conditions of the joints.

Symptoms.—The onset of the disease is that of an acute infection, characterized by loss of appetite, fever, swelling, redness and pain in the larger joints. You may have a pronounced initial chill followed by high fever and, at times, nausea and vomiting.

The temperature does not, as a general thing, rise above 103 degrees F., but in some severe forms may reach 106 or 108 degrees F. The tongue is coated and frequently dry, and, if mouth breathing exists, the previously white coating will become brownish and even black, due to decreased excretion of fluid to the mouth, and an acid decomposition of the desquamated epithelium.

This condition may occur to some extent in all diseases characterized by high fever, but is especially characteristic of acute articular rheumatism. The urine is diminished, high colored and strongly acid, and by chemical reaction shows increased uric and lactic acid deposits.

Profuse and acid sweating is a characteristic symptom, and according to Osler, later on, if sweating is persistent, the perspiration may become neutral or alkaline. The bowels are usually constipated. The fever continues throughout the disease, showing marked remissions.

The skin is often covered with an eruption, supposed by some to be due to irritation of the orifices of the sweat-glands from excessive acid perspiration. The local phenomena is pain, tenderness, increased heat, swelling and redness of the affected joints. The pain is of such a nature as to cause the patient to lie motionless in bed.

Children, sometimes, dreading to be approached by any one, fearing that they will be moved. Anaemia develops rapidly, and a marked leucocytosis is present. The constant and severe articular pains, loss of sleep due to this cause, forced immobility and continued fever are factors which soon reduce fat and muscle.

There is, in some cases, an exhaustive condition occurring in the central nervous system, manifesting itself by hyperpyrexia, and other conditions similar to those arising in septic infections or any long continued high temperature.

This condition may suddenly occur when the patient is close to convalescence, and can only be combatted by the most energetic external cooling of the body. These conditions are of rare occurrence, only appearing from accidental presence of various unfavorable circumstances.

It has not been many years since the physicians met with the clinical pictures mentioned above, the patient lying in bed for weeks and months, developing bed-sores, unless careful nursing was to be had, and in those of obese nature, an eruption which would develop into eczema, causing intense itching, and adding new torture to the already inflamed and painful joints.

But with the recent advance in medical science, this form of acute articular rheumatism is comparatively a thing of the past. But with all the gratifying changes which the treatment has brought about, it is still to be regarded as a serious disease, which frequently throws its shadow over the entire remainder of the life of the individual.

For, with all the active remedies now at our command, we are not able to present all the serious complications which are so prone to manifest themselves. Among the frequent complications endocarditis has first place, and should be suspected and carefully looked for in every case of acute articular rheumatism. Sometimes, especially in children, endocarditis develops insiduously without noticeable symptoms to the heart, and shows a special tendency to dilitation.

The natural sequence from diseased valves of the heart is dilitation of the left ventricle, regurgitation into the lesser circulation and right heart. Upon these diseased valves we have a new danger developing, that of thrombi, which may become loosened and carried into the circulation, clogging smaller and even larger arterial twigs, entering the spleen, kidneys, and brain.

If the terminal arteries should become blocked we have, as a natural sequence, necrosis of the tissue with inflammatory demarkation, (Embolic Infarct), which if in the brain, heart, or wall of the aorta, are especially serious complications.

Chorea, like tonsillitis, is supposed by some to be closely associated with acute articular rheumatism. But speaking of rheumatism in a restricted sense, classifying it as an acute infectious disease, affecting joints and not all parts of the anatomy as formerly believed, possibly places it in another catagory of diseases.

Rochti says the percentage of cases, however, in which chorea is associated with acute articular rheumatism is difficult to determine.

The difficulty arises from the want of uniformity in the reported cases of different observers, due to their different ideas as to what constitutes rheumatism. If only the cases of acute articular rheumatism are to be classed under rheumatism, very few cases of associated chorea need be spoken of; while if all the pains and aches are to be considered rheumatism, the number of chorea cases associated with rheumatism rises to 50 per cent. more.

The truth in the future will probably be found to lie in some intermediate number, for in certain cases a close connection seems to exist between chorea and rheumatism.

The possible association of chorea to acute articular rheumatism is due to embolic processes in certain parts of the brain or by

the toxic action of the bacilli peculiar to rheumatism.

Diagnosis.—As has been previously mentioned there are many morbid conditions which occur acutely, and which from the closeness of the inflammatory processes to the articulations, have much resemblance to acute articular rheumatism, but which, by a close study of the anatomical changes, the nerve centers, and previous history, can be differentiated from rheumatic fever without difficulty.

Multiple acute articular joint inflammation, preceded by marked refrigeration, associated with tonsillitis or history of previous attack, profuse sweats and early tendency to heart complications, should be looked upon as suspicious of acute articular rheumatism.

Previous attacks predisposes to reinfection. Rapid retardation of acute symptoms after use of the salicylates combined with the above clinical picture confirms the diagnosis of rheumatic fever. But we must not be blinded to other diseases, for, after a number of attacks of acute articular rheumatism, we may later on acquire another variety of acute articular inflammation, which from the acuteness of the attack may present the greatest similarity to infectious rheumatic fever.

Gonorrhoeal arthritis in which several joints are affected, accompanied by fever, belongs particularly to this catagory.

The tendency to connective tissue adhesion about the joints, and the fastening of itself upon individual joints, the gleety discharge and the non-reduction of the acute symptoms by the salycilates makes the diagnosis conclusive.

The beginning of osteomyelitis may resemble very closely acute articular rheumatism, especially if both legs be affected at the same time. The differentiation will depend upon the determination of whether the joints are actually the seat of inflammation, or whether it is not more an inflammatory condition of the covering of the bone, and later fluctuation from the presence of pus.

In syphilitic periostitis, which in some instances resembles articular inflammation, we must depend upon the characteristic signs of syphilis manifesting themselves in other parts of the body, the presence of characteristic enlargement of the bone in the region of the joints, and the rapidity with which the symptoms disappear, by the administration of mercury.

Treatment.—Physicians differ very much as to the ultimate effect medicine has upon the course of the disease. Garrod claims that "colored water" is as potent as anything else, as it is a self-limited disease, sometimes running a long and sometimes a short course. This view is adhered to today by a large number of physicians, while others are just as positive that the disease is influenced and cut short by the use of certain medicines.

Rotch claims that there are no drugs which act directly upon the disease, either to shorten its course or to prevent its complications. Recent observations of the effect of the salycilates, however, are that they have a specific influence upon the course and the severity of the disease.

Any failure to get this effect must be due to the smallness of the dose administered or from an inert preparation used. The dose which should be administered to an adult in 24 hours should at least be from 100 to 120 grains.

If pain is not relieved and the temperature not reduced, even larger doses than this may be administered, unless symptoms of intoxication, (such as tingling in the ears or nausea), appear. It is preferable to give it in doses of 10 to 15 grains every two hours until physiological effect is produced, then in smaller doses at longer intervals.

The salycilate of sodium is preferable, being more pleasant to administer and less depressing to the system. It is best administered in a liquid form and in combination with some alkaline solution, as this seems to enhance its efficiency.

The local application of the salycilates in solution to the inflamed joints in some cases is followed by decided benefit. The manner in which the salycilates and its derivatives influence the micro-organism is not known, but its good effects have been reported so often until we are bound to accept its specific influence upon the micro-organism peculiar to rheumatic fever.

The salycilates should not be withdrawn until the fever, pain and swelling have disappeared. The heart must be closely watched and the first indications of endo- or pericarditis, ice coils should be placed over the cardiac region. The early and persistent use of the salycilates, combined with rest in bed, are the surest and safest means of preventing the serious cardiac complications which are so prone to appear.

The bowels should be kept open by some saline, preferably magnesium sulphate. The thirst is best allayed by some alkaline mineral waters. The diet should consist of soups, broth and milk, of which milk is decidedly preferable.

The room should be well ventilated and at even temperature. Daily hot baths should be administered, the temperature ranging from 90 to 100 degrees F.

The period of convalescence requires more care than after almost any other disease. Above all, it is necessary that the heart,

which has been more or less affected, should be allowed to recuperate, especially if valvular lesions have resulted, and this is best accomplished by perfect quiet.

The pulse must be closely watched, and bodily exertions avoided for weeks. After convalescence is thoroughly established a process of hardening should be instituted, and this is best accomplished by carefully chosen hydro-therapeutic measures, which if properly administered influences the eliminating power of the skin and the entire process of metabolism.

This hardening process, the administration of some preparation of iron, good nutritious diet, and avoidance of bodily exertions, makes up the treatment of convalescence and gives us the best final results.

Pneumonia.*

By J. B. H. Knight, M. D., Williamston, N. C.

Gentlemen and Fellow Members of the North Carolina Medical Society:

I have chosen this old and well worn subject for a paper with the hope that I may bring out a few points which may be of interest, and perhaps usefulness, to some of you. In doing so I shall, perhaps, disagree with some of the standard authors as to causes and treatment. I shall not follow any special author in my presentation of my remarks, but will be governed solely by my own observation and experience.

1st. I shall ask what is pneumonia?

Worcester simply says it is an inflammation of the lungs.

Pneumonia is a disease of the lungs, the symptoms of which are fever, accompanied by pain in the chest, more or less acute, and aggravated by coughing, or a deep, full inspiration, a quick, hard pulse, more or less difficulty in breathing and a painful cough. But the symptoms are so widely different in the different varieties of pneumonia, that at this point I will attempt to differentiate between the varieties.

For convenience I would name the following varieties: 1. Croupous or interstitial pneumonia, or pneumonitis. This may be subdivided into other varieties according to the position and extent, i.e., it may be unilateral or bilateral and may involve a whole lung or one or more lobes of the same or even a part of one lobe; this, by some authors is called lobar pneumonia. It may be either acute or chronic, but this variety is almost always acute.

2. I would denominate Catarrhal Pneumonia. And this like the other form may be subdivided into acute or chronic, unilateral or bilateral, and may involve one or more lobes, or even a part of a lobe.

auses.—There are various causes of pneumonia. But the most frequent one is exposure to cold or damp. The patient gets a good wetting or gets his feet wet, or through violent exercise gets his underclothes wet, and afterwards exposed to cold, gets chilled through, has a chill followed by high fever and aching all over, soon finds himself suffering acute pain in the side, pulse becomes rapid, full and hard—a pneumonia has set in. This is the acute attack. Or he may have been suffering from malaria for several days and finally has a congestive chill, leaving him with one or both lungs congested, which if not relieved promptly soon becomes a pneumonia. Another frequent source for cause comes from kicking off the cover at night while dead asleep. This is why warm and unseasonable weather is considered so dangerous. This brings us to the point of the weather as a cause. Warm days and cool nights are a very frequent cause, or leads many to do the very thing which leads them to take acute colds, often causing pneumonia, dysentery and all forms of diarrhoeal troubles.

I have seen a few cases of the acute variety caused by a bruised lung, either by a fall or a blow, or some external violence on the chest. As the treatment of this variety is so radically different from the catarrhal or other varieties I will touch upon it here.

In this variety the pain is almost always acute, the fever high, the skin dry and harsh. Get your patient into a sweat as soon as possible. When the patient is a strong, robust individual, I generally give him a good dose of acetanilid, quinine and aconite, but don't fail to open the bowels with a good dose of calomel, rhubarb and podophyllin. A good recipe for one of these sthenic cases would be acetanilid and quinine each 3i. Fl.Ext. aconite root mx. m. Ft. capsulas No. XX. Sig. one every two or three hours according to temperature and pulse. Or, if you prefer, give solution acetate ammonia oz. iij; spts. nitre oz. j; Fl. Ext. aconite 1 dr. M. Sig. teaspoonful in water every 2 hours. Or these two recipes may be alternated every two hours. Use hot applications and counter-irritation externally over seat of pain. I generally use spts. turpentine on a hot flannel, rubbing it well several times a day if necessary. If the heart action is at all weak or unsteady combine Fl.Ext. nux vomica with the fever mixture. The aconite dilates the capillaries and slows the heart's action, while the nux vomica steadies it. I find that the two act together admirably. I do not believe in giving opiates to these patients. You want to aid in clearing out

*Read before the North Carolina Medical Society at Charlotte, N. C.

from the air spaces the product of inflammation, instead of locking it up in there, which the opiates certainly will do, Whenever I give opium in any form, except very rarely a hypodermic of morphine for the acute pain, I usually give the Tr. opii. camph. when the cough becomes excessive.

The catarrhal form of pneumonia is caused in much the same way as the acute or croupous varieties, only the symptoms are slower. The patient takes a cold from exposure to cold or damp. He has slight fever, perhaps, aches all over, has a general muscular soreness, and develops a cough. The pain is never acute, but the cough grows more and more aggravating. He soon begins to rattle in the chest and to spit up large quantities of yellowish white sputumr This sputum is rarely ever streaked with blood as in the more acute variety. This form often starts out as a bronchitis and spreads from the bronchi to the smaller bronchial tubes and on to the bronchioles. So long as it is confined to the bronchi we are in the habit of calling it a bronchitis. When it goes further into the bronchioles we are apt to call it grippe, but let this inflammation spread just a little further and involve the air spaces to any extent and we have a catarrhal pneumonia. This variety is much slower in its advent, and is also much slower in subsiding. This is the kind so apt to become chronic, and is the cause of a large number of those cases which we doctors put down in our insurance applications as acquired, or galloping consumption, the latter when it runs its course in three or four months.

The treatment in these cases varies very materially from the more acute cases. The fever is not generally so high, but when it is should be treated in much the same way. Get the fever under control as soon as possible in either case, for I think this the key note in the control of the disease. So long as the fever continues, so long is the disease liable to spread. The danger in this disease is in exactly the same proportion as the amount of tissue involved. Stop the spread as soon as possible, as one great danger lies in systemic poisoning from the absorption of the ptomaines generated from the destruction of tissue as a product of inflammation. It is well to keep all the excretory organs to the highest pitch—see that the skin, kidneys, liver and bowels are doing their full duty. The sputum in these cases is apt to be tough and stringy, and often the cough is out of proportion to the amount of matter expectorated. When this is the case I usually give the muriate of ammonia in 3 or 4 gr. doses and generally combine syr. scillae and sometimes glycerine and Tr. opii. camph. with nux vomica to tone up the heart and as an appetizer. I have grown to prefer the Fl. Ext. nux vomica to strychnine. It seems to have better action for me. Contrary to the old practice I allow my patients to drink freely of pure cold water. I believe the poison is largely thrown off by the kidneys and they cannot do their work without something to work with. A good mechanic is not much good without his tools—so the kidneys with nothing with which to work. Some of these asthenic cases are slow in reaching the third stage, or stage of resolution, and it often becomes necessary to use blisters over the site of consolidation instead of the "counter irritant." In some cases I use hot poultices with turpentine. Occasionally I use Antiphlogistine, but still oftener the old fly blister. In the latter or third stages of the asthenic cases I believe in stimulation and use toddies of good old rye whiskey, apple or French brandy. These may be made with sugar and water or given as a milk toddy or as an eggnog. The diet should be light, easily digested and principally of a liquid nature. Suitable diet can almost always be prepared in the average home, but sometimes it becomes necessary to use the highly concentrated and predigested foods, such as liquid peptonoids, malted milk, Mellin's food, Bovinine, etc.

A great deal has been said and written of late years about the micrococcus lanceolatus as a cause of pneumonia. I have never looked upon this young gentleman as being a cause of this disease, but a product. I am not converted to the theory of pneumonia as a germ disease. I know these germs are present, but so they are in every case where there is inflammation. You may shoot down the healthiest horse you can find and in a few hours he is reeking in maggots. You might as well say the maggots killed the horse.

So, gentlemen, I would emphasize the fact that pneumonia still, as of old, is caused by exposure to cold and damp, etc., and not by germs. And in the treatment to avoid the use of opiates as much as possible. Find some other way to relieve the pain. You can generally do it by the use of hot applications and counter irritation. Keep down the fever and keep all the excretory organs to the highest pitch—keep the skin clean and active; kidneys active, liver and bowels active, support your patient well by suitable foods and stimulants. Give plenty of fresh air, but beware of drafts. I don't like too hot a room. The room should be kept so that it is comfortable to you and others—beware of a stifling atmosphere. Look out for, and ward off all complications possible, for it is here a great danger lies. Your

mortality in uncomplicated cases should not be more than three or four per cent.

I do not wish to convey the impression that pneumonia cannot be caused by inoculation with these germs spoken of. It has been done and I suppose can be done again, by injecting into the system a sufficient amount of them to cause blood-poisoning. They have the faculty of multiplying rapidly and soon become a source of infection, and the whole system becomes poisoned by them, and as the lungs and air passages are their habitat, this is where we may look for trouble. So, while I will admit this may be a cause, it is an improbable one.

I have not intended this as a classic treatise on the subject. I know I have stopped far short, but hope the ideas I have gathered from experience and advanced here may be worth something to the profession.

I thank you for your attention.

The Early Diagnosis of Pulmonary Tuberculosis.*

By Dr. W. M. Jones, High Point, N. C.

In the selection of this subject I do so with the hope that, to some extent, a closer investigation may be sought and more definite results obtained. Any question relative to pulmonary tuberculosis is an important one, and the above is no exception, unless it be on account of its priority. The most important question before the medical profession of today is, The Prevention and Cure of Tuberculosis. This is a question of such vast importance that no city of any prominence is without its Society for the Study and Prevention of Tuberculosis. There are State Societies, National Societies, and even International Societies, organized for the study and prevention of this disease.

Only a few months ago there was held in the city of Philadelphia a tubercular exhibition, from which not only our profession but the laity were able to see and have explained to them the pathology and course of this disease by one who was competent to make it clear to the most obtuse mind.

It is important on account of its antiquity, having existed since the time of and before Hippocrates. He was the first physician to teach that it was curable, and he even went so far as to outline a course of treatment. A great part of his theory has been discarded during the time that has elapsed since he lived and taught. But today we recognize the wisdom of some of his ideas and see the clear and sound reasonings of the doctrines which he extolled centuries ago. He did not teach that it was curable in any of its different stages, but "That it was curable, provided it was treated at a sufficiently early stage." Carswell in 1836 wrote, "Pathological anatomy has never afforded stronger evidence of the curability of a disease than in the case of phthisis." This assertion has ever been supported by pathologists. Important as to mortality: causing the death of one of every seven persons who die. In the east the mortality statistics have ranged as high as 44 per cent. Here we see the necessity of self-preservation, which is the first law of nature. Being, as it is, essentially a disease of civilization we as civilized and educated beings should not let it get the mastery over us. It is different from other plagues that have scourged the world, in that they were limited either as to geographical location or race, whereas the great white plague has no limit, either as to location or race, but reaps its victims from all classes, the highest to the lowest, the Anglo-saxon to the Negro, the babe at the breast to the old man in dotage, none are exempt. In order that these deleterious effects may be lessened, and that the great white plague go the way of all other scourges that have arisen to molest and destroy man, it must be detected in its incipiency. For then, and then only, are we going to eradicate it, and it will be known only as a rarity, a medical curiosity.

In 1856 Brehmer wrote a thesis: "Tuberculosis primis in stadis semper curabalis." That which he held 50 years ago is true today.

Many difficulties are met with in making a positive early diagnosis of pulmonary tuberculosis, for the clinical indications of the pathological conditions are not well marked. This has caused many to accept the erroneous idea that no one except he be an expert or specialist could make a diagnosis in the incipiency.

The general practitioner may not be as accurate as to the exact pathological conditions that are present, nor as capable of as correct a prognosis, still he can, by close attention to details and a painstaking physical examination, arrive at a conclusion which is positive; and this at a time when a cessation may be expected. Nothnagel has said, "Faulty diagnosis, due to superficial examination and hasty observation, is without excuse." So it depends on the general practitioner how soon we are to have a cessation of the high per cent. of mortality and a higher per cent. of cures.

During the spring of 1905 a committee was appointed by the "National Society for the Study and Prevention of Tuberculosis," to draft an outline of symptoms whereby an early diagnosis might be made and at a time when a favorable prognosis could be expected.

* Read before the North Carolina State Medical Society at Charlotte, N. C.

The following were adopted by the Society:

1. "Slight initial lesion or lesions, in the form of an infiltration, limited to the apex or a small part of one lobe."

2. "No tubercular complications, slight or no constitutional symptoms."

3. "Slight or no elevation of temperature, especially after rest."

4. "Slight or no expectoration."

5. "Tubercular bacilli may or may not be present in the sputa."

These are all most excellent points, but they do not suggest the question as to how we are to get the patients at so early a time, and when found how are we to make the diagnosis?

There are at least five (5) points, upon any two of which an early diagnosis may be made.

1. Persistent irregular fever.

2. Hemoptysis.

3. Persistent crepitant rales, increased resistance and the mucous clic.

4. Presence of tubercular bacilli in the sputa.

5. By the use of Koch's tuberculin.

Any one of the above enumerated points, when associated with suspicious symptoms of tuberculosis, is sufficient ground whereon a positive diagnosis of pulmonary tuberculosis may be made.

It will be convenient to discuss these several points in greater detail.

Whenever there is persistent irregular fever, a positive diagnosis of pulmonary tuberculosis should be made. This is one of the most important symptoms, and is among the first to appear. In order that it may be ascertained with any degree of certainty, the measurements must be recorded every two hours, from 8 a. m. to 10 p. m., for at least one week. Then no matter how small the amount of infection, there will be seen at some hour of the day a slight rise in the chart. Frequent rise of mouth temperature to 99.3 or 99.5 during rest must be regarded as fever. In the majority of cases the mouth temperature during rest will not exceed 99 under normal conditions. Do not be misled by the idea that the temperature will always be higher during the afternoon than at any other time, for it is not always the case. Generally it is at its highest between the hours of 4 and 8 p. m. Do not lose sight of the fact that the external temperature exerts some effect, for it most certainly does, not only on tuberculous subjects but on those who are presumably in normal condition. Nor should any reliance be placed in these one and two minute thermometers, so-called, for if you will permit them to remain in the mouth or rectum for five minutes you will see a rise of at least .2 to .4 degrees, if the Fahrenheit scale be used. Frequent causes of rise in temperature are menstruation and digestive disturbances. There is no possible chance of confounding this condition with anything else, for there is no disease that runs a temperature record like that of pulmonary tuberculosis. There will be other signs and symptoms that will verify the diagnosis, and make it absolutely positive. Whenever the chart shows a record of subnormal, normal, and a slight rise every day, for at least one week, it can be nothing except pulmonary tuberculosis.

Hemoptysis, Hemorrhage.—This does not always appear, but whenever it does, no matter how small the amount, a positive diagnosis of pulmonary tuberculosis should be made. With the provision, that its origin cannot be clearly demonstrated. I am aware of the fact that some few cases of hemoptysis do occur in which the subjects do not subsequently develop tuberculosis. But in the light of our present knowledge, and the report of statistics, it will be clearly seen, that though these cases did not to all appearances develop tuberculosis, that it is more than probable they were simply incipient cases of this disease. For when we realize that 98 per cent. of the inhabitants of the world show tubercular lesions, and that only 18 per cent. die from the disease, there is yet 80 per cent. that have tuberculosis that have not been accounted for. So it is in this 80 per cent. of cases that recover, that the cases of hemoptysis occur that are reported to occur and never to have had tuberculosis. Therefore, it seems plausible to call all cases of hemoptysis tubercular, and by so doing our percentage of error will be exceedingly small, and at the same time patients in whom the hemorrhage was really due to incipient pulmonary tuberculosis, would not run the risk of having treatment postponed until the time when the disease had produced great destruction of tissue and the chances of recovery commensurately diminished. Whenever a patient is seen who has had a hemorrhage from the mouth we must ascertain by a process of exclusion as to its pathological origin. This may be done by ascertaining:

(a) The manner in which the blood was brought up.

(b) Character of the blood *per se*.

(c) Previous history of the case.

(d) Subsequent course and symptoms.

By so doing we are enabled to arrive at the correct conclusion of the case and the cause of the hemorrhage, and are thereby enabled to make a positive diagnosis.

Persistent crepitant rales, with the addition of the so-called mucus clic and associ-

ated with diminished resonance and an increased resistance, is sufficient data whereon a positive diagnosis may be made. The important point is the persistant crepitant rales, especially when heard in the posterior apices and accompanied by the other signs enumerated. Crepitation must be present at two or more examinations, always at the same location and which does not disappear on coughing. Emphysematous areas are cleared by the act of coughing, and are therefore not persistent. The condition that is known as post-tussal crepitation is of great value in making an early diagnosis, but it must be persistently at the same location. By the act of coughing we are often enabled to obtain a slight degree of crepitation or moisture, whereas before the act there were no perceptible changes in the breath sounds.

Crepitation is of more value when heard at the apices, and there it is better heard from the posterior aspect.

There is no other condition that presents the above enumerated signs, and that being the case, whenever these signs are found to be present, it is evidence conclusive that the case can be none other than one of pulmonary tuberculosis.

Do not attempt to make your diagnosis from one examination, no matter how thorough that may be; nor from two or more careless examinations, but if after two or more close and careful examinations you are satisfied that you have the above signs present at the same location you may make a positive assertion that the case is none other than one of pulmonary tuberculosis.

Presence of tubercular bacilli in the sputa, no matter what signs or symptoms may be present.

Von Strunyell says, "At the present time the examination of the sputa for tubercular bacilli plays the most important role, and the only decisive one in the recognition of commencing phthisis."

Von Ziemssen says, "It may rank as one of the best established rules of diagnosis that tuberculosis may be excluded in any case of lung affection in which a scientific and skillful examination fails to demonstrate the presence of the tubercular bacilli."

There are one or two exceptions to the above statements, viz:

Primary tuberculosis of the mouth and its appendages. This, however, is of minor consideration, for if tubercular bacilli are fully engrafted in the mouth or on the tousil they will in a very short time find lodgement in the soft spongy tissue of the lungs. It has been my experience that primary tuberculosis of the mouth or appendages is exceedingly rare, and in the majority of cases it is simply a secondary affection to that of the lung. However this may be, it is of no great importance; for if tubercular bacilli are found to be in any of the excretions of the body it is positive proof that a tubercular focus is present. Then it behooves us to make a positive diagnosis of tuberculosis whenever the tubercular bacilli is found to be present in the sputum.

It answers to every requirement of Koch's dictum, and that being the case there is no ground for a discussion as to whether it be tuberculosis or not.

So we see that whenever the above is found to be a fact a positive diagnosis is not only justifiable but is demanded.

Lastly by the use of Koch's old tuberculin. Objections have been made to the use of this by such noted physicians as Virchow. He made the assertion that it caused a generalization of the disease. This has since been proven to be erroneous, and entirely without foundation.

Tuberculin is dangerous and should not be used indiscriminately, nor in advanced cases with mixed infection and which are running a febrile course. For here is in all probability where Virchow made the mistake that prompted him to make the assertion that he did in regard to it causing a generalization of the disease. We know that on account of the damages it did when given in large doses, as was done at the time it first came into use, caused it to fall into disrepute. We now see where the error occurred, and have to some extent overcome the skepticism that has prevailed in regard to its use. It should be used as a diagnostic agent only at a time when other methods have failed.

But whenever the infection is so slight that a positive diagnosis cannot be made by a close physical examination and no tubercular bacilli appear in the sputum, then one, two, or even three injections of Koch's old tuberculin may be employed without the slightest risk. Osler has said: That he regarded Koch's old tuberculin as a safe and efficient diagnostic agent. There is no case on record so far as I have been able to ascertain, where under proper precautions and favorable conditions harm has followed the use of the injection.

Before making use of tuberculin as a diagnostic agent the case should be closely studied. The temperature should be recorded every two hours for at least one week before the injection is made.

The old tuberculin of Koch is diluted with 0.5 per cent. carbolic acid solution till a 1 per cent. solution of tuberculin is obtained. Then 0.001 c.c. or 1 milligram of this is used for the amount of the first injection, for it is not necessary nor desirable that the reaction be more than sufficient to

make the diagnosis clear. The temperature should be recorded every two hours as before. A rise of 1 degree F. must be considered as a positive reaction; in exceptional cases this rise may be delayed for 36 hours.

Coincident with the rise in temperature there is an increase in moisture over the affected area. This is claimed as a positive reaction, even though there be no perceptable rise in the temperature. The second injection may be made in a week or ten days, using 0.003 c.c., and in the majority of cases this will be all sufficient to produce a positive reaction, and consequently a positive diagnosis.

Sticker has obtained the same results—in regard to the local reaction—with small doses of potassium iodide. He administers small doses for three or four days when signs of local catarrh are heard over the suspected areas.

Vetlesen claims it to be positive in all cases of pulmonary tuberculosis. I have made use of it in only a very few cases and find that it produces an increase of moisture, and an apparent increase in the T. B. in the sputum.

Vesical Calculus in the Female with Report of a Case.†

By Dr. Z. Marvin Caveness, Wakefield, N. C.

Vesical calculus is a misfortune that may befall every age and condition of human life, from the foetus in utero to the old and decrepit. They are concretions of the various inorganic substances which are common in the urine, and organic particles, such as epithelia, mucous and various inflammatory products, often enter into their formation.

Calculi are less common among women than among men. This fact is probably due to the shortness, great size and dilatability of the female urethra; on account of which small calculi may readily pass out.

Aetiology.—In this two great factors are recognized. The one includes all conditions of the economy which favor precipitation of the inorganic elements of the urine; the second, all inflammatory lesions or conditions which produce decomposition of the urine in the bladder, the detachment of epithelia, and the accumulation of other organic elements which serve as nuclei, around which the salts of the urine are congregated.

In the first category may be mentioned some hereditary tendencies, such as gout and rheumatism. And certain conditions of malnutrition undoubtedly lead to a precipitation of the urinary salts.

†Read before the North Carolina Medical Society at Charlotte, N. C.

But according to the researches of Rainey, Horting, Ord and others, the indication is, that the formation of stone is not a simple process of deposition of salts existing in excess in the urine. Indeed, instances are of every day occurrence in which uric acid, urates, oxalates of lime, or the phosphates are present in solid form for long periods of time in the urine without leading to stone formation. The investigation of these observers has shown the crystalline substances of the urine to follow the law of molecular coalescence laid down by Rainey and elaborated by later observers. Which is, briefly: That, in the presence of colloid or albuminoid substances crystalline materials become spheroidal in shape and coalesce in rounded form. Following this law in the urinary passages crystals of uric acid in their usual rhomboidal shape may for long periods be thrown down, washed along and passed out with the urine without showing any tendency to form concretions. Finally the irritation of the urinary tract, if not already present from some of the many local aetiological factors to be mentioned later, leads to the exudation of albuminoid material, which, acting on the crystals, change their molecular form and creates in them the tendency to coalesce. The calculi once started continues to act as an irritant to the wall, and so continues to be supplied with an albuminoid envelope in which successive layers of spheroidal crystals are deposited.

In the group of local causes may be classed all cystic diseases in which the products of inflammation collect in the bladder and form nuclei, around which concretions occur. Cystitis and decomposition of the urine, obstruction and inflammatory lesions of the urethra, which may involve or affect the integrity of the bladder, the presence of any foreign matter in the bladder or paralysis of the bladder from any cause, or vesico-vaginal fistula.

Pathology —They may form in any part of the urinary tract. When they originate in the kidney, they usually find their way, sooner or later, into the bladder. This may be accomplished painlessly or may be accompanied by severe pain (nephritic colic). After reaching the bladder they usually pass out through the urethra and cause no further trouble, or remain and gradually increase in size until their presence is revealed by symptoms to which they give rise. A calculus thus retained in the bladder continually grows by accretion. So long as the urine remains unchanged in reaction the character of the calculus continues the same; when, however, the urine, formerly acid, becomes alkaline from any cause, the phosphates or soft salts are de-

posited on the hard or basic salts of calcic oxalate or uric acid.

They may be roughly divided into two classes. First, those which form in the acid urine; and, second, those which form in the alkaline urine. In the former we have the uric acid and oxalate of lime calculi. The uric acid calculus is generally firm, but brittle, with a tolerably smooth surface. The oxalate of lime calculus is hard and usually covered with rough, often sharp projections, giving them a knobby, irregular outline, which has suggested their distinctive name of mulberry calculi.

In the latter, or alkaline urine, we have the phosphatic calculi. These are usually smooth, soft and friable; and their formation is almost invariably the result of some inflammatory condition in some part of the urinary tract leading to alkaline fermentation of the urine.

A stone composed wholly of any one of these constituents is, however, not common, the usual condition being a mixed form in which uric acid or oxalate of lime nucleus is covered by a phosphatic crust. Sometimes a succession of layers may be formed by alternating deposits of different components. The phosphates are almost always combined with the alkaline urates or carbonates.

Symptoms —The symptoms of stone in the bladder are: First, pain. This is especially severe at the end of micturination, when the bladder wall closes down upon the rough surface of the calculus. The pain is often referred to the perineum and rectum. It is usually much increased by violent movements or jolting, as in riding.

Secondly —Frequency of micturination, which may or may not be diminished by rest in bed.

Thirdly.—Haematuria. The presence of blood in the urine is intermittent. The urine may be a wine red or smoky color, or the blood may be contained in the last few drops of urine passed. Hemorrhage is likely to appear after exercise or jolting. As a confirmatory symptom may be mentioned sudden stoppage of the stream in the midst of micturition, caused by the calculus falling against the urethral opening.

Diagnosis —It may be stated at once that however much has been and may be said of the value of the various symptoms of calculus the diagnosis rests upon one simple expedient, the introduction of a metallic instrument into the bladder and in contact with the calculus. A bimanual examination between the hand over the pubes and the finger in the vagina will often reveal the presence of a calculus of any size.

Treatment.—After the formation of a calculus too large to pass through the urethra, its removal can be accomplished only by some mechanical expedient. The solvent action of alkaline or other remedies has never been shown to destroy a stone that has been proved to exist.

Small calculi uncomplicated with cystitis may be crushed and removed through the urethra. Large stones should be removed by cystotomy. Whenever cystitis is present it is advisable to perform cystotomy and make a permanent fistula until cystitis is cured, when the opening may be closed.

Report of a Case

History:—Mrs. S., widow, age 52, previous history negative as far as nephritic colic, cystitis or calculus is concerned. But went to hospital August 4th, 1904, and had an operation for fibroid of the uterus. The operation consisted in a complete hysterectomy along with its appendages. During the operation, while breaking up the pelvic adhesions, a hole was torn into the bladder. This was repaired, but for some cause did not close and a permanent fistula followed (vesico-vaginal).

Improved slowly for some weeks but suffered much pain with bladder. Left hospital October 13th, 1904, but had to go back October 20th, 1904, for treatment of the bladder, and left the second time November 28th, 1904, much improved but not well, and still under the supervision of her doctor and nurse until the last of February, 1905, when she was able to go to her home—Wakefield, N. C.

In a short time the bladder trouble began to give her much pain and she called her family physician, who treated her until the last of April, 1905, with very little results, when he insisted that she return to hospital. It was then that I first saw this patient and found her suffering all the agonizing pain of acute cystitis, not being able to get any rest day or night, except under the effect of some opiate, and in a very weak, nervous condition, caused by the operation and protracted suffering through and under which she had gone.

From the history given I suspected stone in the bladder and examined for same, but found no trouble except the cystitis. At this time the bladder wall was so much inflamed the fistula seemed to be closed from the swollen congested condition, and there was no leak. I told her she was suffering from acute cystitis and saw no reason why she should not be treated at her home as well as at the hospital, and at once put her on treatment under which she gradually improved. Was able to be up in her room in a week or ten days. When the cystitis was relieved, to great extent, I then gave her treatment for the weak, nervous and

depressed condition she was in when she came from hospital, and under this she improved rapidly. As she began to regain her strength and nervous vigor the cystitis seemed entirely relieved, and I discharged her the last of June and saw her only occasionally during the summer.

Some time in the fall the bladder again began to give her some trouble, but not so much as she had suffered before, and she worried along until November 20th, 1905, when she passed a small calculus and again called me. On bimanual examination I detected a mass in the bladder, and from symptoms given, my diagnosis of calculus was confirmed by the introduction of a metallic instrument into the bladder and in contact with the stone.

On November 24, 1905, I performed cystotomy by enlarging the already small vesico-vaginal fistula and removed a calculus (phosphatic) about the size of a guinea egg. The opening was left and a permanent fistula formed which gave free drainage to the bladder. The bladder was irrigated for 10-12 days daily with warm boric acid solution for the accompanying cystitis. The cystitis improved rapidly and the convalescence from the operation was uneventful save on the 10th day after the operation had a profuse hemorrhage from the bladder, but this was controlled by packing.

The cystitis is now well. The patient has regained her former strength and vigor. The vesico-vaginal fistula will be closed by secondary operation.

Prognosis of Pulmonary Tuberculosis.*

By James Sawyer, M. D., Asheville, N. C.

The prognosis of pulmonary tuberculosis is always to be regarded as serious, but by no means absolutely unfavorable. Under no circumstances will it be wise to be too positive in predicting a recovery, or an adverse course, for we know that after apparent recovery or after the same has been further substantiated by a tuberculin test, a caseous mass that is encapsulated may break down, and the patient is then liable to exhausting suppuration, to hemorrhage and pneumonia, to extension of the disease to other parts, to acute miliary tuberculosis and to the occurrence of a fatal issue. This liability exists to a greater degree, of course, before apparent recovery has been reached. On the other hand, we also know of instances in which extensive pneumonic complications, or an otherwise most seriously adverse course, such as we witness in acute phthisis, have quite unexpectedly come to a standstill, and the patients have thereafter improved, and were restored to good health. Even in cases of acute miliary tuberculosis recoveries have been witnessed by competent observers. To be correct in the average is, however, all that can be demanded in the prognostication of any disease. At the same time it is sometimes wise to point out the fact that we are not prophets, and that our estimate of the future is based upon what happens as a rule, and not as an exception; and that in making such a forecast we judge the future by our past experience.

In the prognosis of individual cases it is not only the stage of the disease that may have been reached that should govern us in estimating the prospect and the probable termination of the case, but many other factors need to be considered and weighed if our estimate is to be such that it will, as a rule, be confirmed in the future.

It has been well said that tuberculosis is a disease which is characterized chiefly by its complications. Hence, the prognosis is governed largely by these complications. Pure, that is uncomplicated primary, tuberculosis is, unfortunately, comparatively rare, or at least it is comparatively rarely that it reaches us in that form, though, if we may judge from autopsy reports, it is not nearly so rare as one would imagine, as numerous cases are thus found in which tuberculosis was not even suspected during life. The prognosis of pure tuberculosis is good, and the prognosis of all other forms is governed by the nature and severity of the complications existing.

Up to within the last two or three decades tuberculosis, which was then synonomous with "consumption," was considered incurable, but now we know that, by proper hygienic, dietetic, specific and other treatment, a large majority of the first and second stage cases can be cured, and that many of the advanced cases can be arrested and some cured, the results depending to a great extent, as above mentioned, upon the complications existing.

However, there are certain cardinal points which may be taken as guides in prognosis. General considerations are of importance, especially the consideration of the factors that influence the course of the disease which are inherent in the patient himself. Of these the most important are his character and his mental and moral stamina, as well as his physical condition outside of his tuberculosis. His financial status also has its influence. If a man be of strong mentality, with sufficient moral force and will power, so that he can understand what is required of him and will intelligently cooperate with his physician, his chances of recovery are vastly greater than if he will not or can not do so. Moreover, if he has

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the means to secure all the attention and necessities required in his case he is better fitted to get well than if he can not afford these things. If in other respects his constitution is strong and vigorous, he will have a better prognosis than if he has a vitiated constitution, whether it be by over-indulgence, vice, bad habits, or inherent weaknesses, as from the diseases of childhood, syphilis or any other physical stigmata.

The scope of this paper does not permit of a consideration of all the factors which enter into the prognosis of pulmonary tuberculosis, therefore we shall limit it to a consideration of a few of the most important points, leaving out tuberculosis of the other organs and parts of the body, as well as most of the other complications.

The previous environment, taken together with the present condition of the patient, gives valuable aid in prognosis, because, if the previous environment can be improved, the patient's chances are improved in proportion. Especially is this true of poor people who have lived in unsanitary places, improperly fed and clothed, and poorly nourished. A proper hygienic environment, with plenty of clean, nutritious food, accomplishes a great deal in these cases, and the improvement is very rapid and marked, much more so than in those who have been more fortunately situated previously.

The prognosis would be still more favorable if the patient would seek the physician earlier in the case of obstinate catarrhs, &c. Sometimes the physician is responsible in that he permits himself to be led astray in these catarrhal conditions by the excellent family history of the patient and his healthy appearance.

The physical examination does not always give a reliable clue to the prognosis, for the reason that miliary tuberculosis, which is the most dangerous, is the most easily overlooked, as its physical signs may be very slight. On the whole the previous course of the disease and its intensity are more significant than its extent. The presence of cavities of even considerable size does not exclude improvement and cure, if only fever, emaciation, and signs of progression be absent. Naturally, the more extensive the foci, the worse the prognosis. It is most favorable if the process is limited to one apex. It is not so good if the opposite apex is involved; and the prospect of recovery is still more seriously impaired by the signs of the destruction of tissues or of rapidly progressing infiltration; i.e. of a broncho-pneumonia. The more advanced the lesions are, and especially the greater the area of long tissue that is involved, the more does the prognosis become clouded and insecure, but a formed cavity, or several such, if situated in a diseased area not exceeding in extent one upper lobe, need not be a seriously discouraging feature. A cavity as such may influence the future course of the disease but little, or not at all. If it is small and situated in an upper lobe, is well drained and dry, and especially if it appears to be well enclosed by fibroid tissues, it need never cause any serious trouble or symptoms. It is not so much the formed cavity as it is the period of softening and liquefaction of the caseous mass and the complications that are liable to attend it, which threatens the patient. Cavities of large size, those situated in the lower lobes, those that are continuing moist and are imperfectly drained, those that show little or no fibroid changes upon their periphery, or are undergoing more or less rapid extension, are of more serious import, and the greater and the more persistent the secretion or suppuration in such cavities, the greater the liability to hemorrhage, aspiration-pneumonia and continued septic absorption.

With the beginning of destructive changes the prognosis must be guarded, the more so the less evidence there is that the disease is limited to a small area, and in cases which show but little or no fibroid changes and limitation of the local disease, the destructive changes are liable to be extensive and to be continued. More serious yet is the outlook when, in the presence of excavation and local suppuration on one side, like changes begin to show themselves in the other. In such cases the fever is a good index of the rapidity with which the patient is likely to lose in his general condition, while the extent of the area involved gives us an indication of its probable duration. If the fever is moderate and does not exceed 101.5 degrees F., if its duration above 100 degrees F. does not exceed more than three or four hours out of the twenty-four, if there are no severe chills or exhausting night sweats, or, if the symptoms are more severe, they yield to rest and general hygienic and dietetic management, and especially if the patient enters this stage with good digestive organs, and with a good or fair state of his general nutrition, and with a good circulation, we may reasonably hope to safely pass through this period, and that, although the patient may lose weight and strength, he will thereafter enter upon a period of improvement, which may terminate in the arrestment of the disease.

The severity of the cough, the amount of expectoration, or the admixture of blood with it, and the occurrence of hemorrhage, may in certain instances aid in determining the severity or degree of activity of the local process, and on that account may have a

prognostic value. Severe cough fatigues and exhausts the patient and often interferes with proper rest and sleep, and also with nutrition when it occasions much vomiting, while it favors the occurrence of pneumonia through aspiration of sputum, especially if the latter is profuse. Large quantities of sputum, containing innumerable bacilli, usually indicate rapid disintegration of caseous material, and persistent admixture of blood with sputum or the occurrence of hemorrhage may be of like import. Absence of, or but slight, cough (except towards the close of life), absence of tubercle bacilli (excepting in miliary tuberculosis, and the beginning of acute tubercular pneumonia) or their gradual disappearance from the expectoration, absence of other pathogenic bacteria, a slight amount of expectoration, its freedom from blood and the gradual disappearance of purulency are therefore favorable prognostic features.

From a prognostic standpoint the hemorrhages which occur in the initial stages and later from non-secreting cavities rarely endanger the life of the patient either immediately or remotely, but are, as a rule, of temporary disadvantage from the loss of blood and necessary confinement, though they sometimes have a very beneficial psychical effect on the conduct of a certain class of patients. In the course of destructive processes, or proceeding from suppurating cavities, the occurrence of severe hemorrhage has a like disadvantage with the additional danger of bleeding to death from the rupture of some larger or smaller aneurism contained in a cavity or of thereafter favoring an adverse course, by adding to the exhaustion of the patient at a critical period, or favoring the occurrence of pneumonia, and, in either case, it may change the prognosis to a more serious one, and in some instances render it hopeless.

The prognosis in general is, therefore, comparatively good in the early stages of the disease, and as regards arrestments and improvements from the more advanced stages under which years of comparatively good or comfortable health may be enjoyed, it is by no means so bad as to justify a hopeless attitude. So long as the disease is of the chronic form, and is strictly confined to the lungs in patients who are still in fair physical condition, and able to digest and assimilate a sufficient quantity of food, efforts for such results will often prove successful, providing that the necessary measures are persistently carried out for a sufficient length of time.

The presence of associated pathogenic germs in the sputum does not necessarily cloud the prognosis; in many instances they are derived from the mouth and upper air passages, when they have no clinical significance at all. When, however, the sputum has been obtained after careful washing of the mouth, by collecting it in sterile vessels, and having washed a globular mass with sterile water, we find a portion taken from the center of the mass to contain them and in considerable numbers, while not as yet justifying the diagnosis of mixed infection, their presence indicates that they are vegetating in a cavity, or upon a necrotic caseous mass, and that such a patient is more liable to complicating pneumonias, and to prolonged suppuration. The danger from mixed infection is chiefly the occurrence of pneumonic processes, but, if they occur, the involved area does not necessarily undergo destructive changes, and in many instances complete resolution takes place. The absorption of toxins from such associated pathogenic bacteria is of course also to be considered, since it may add materially to the existing fever. In a paper read before the Tuberculosis Congress at Naples, Sata, of Tokyo, said that the variety of forms of tuberculosis depended on the variety of the etiological factors; that various microorganisms were found in the sputum, in the lungs, and in the blood of consumptives; that the influence of mixed infection on the tuberculous process was very great, the most important symptoms of it being a typical fever, abundant expectoration and extensive pneumonia; that the broncho-pneumonia of consumptives was excited by mixed bacteria; that the principal microorganisms of mixed pneumonia were streptococcus pyogenes, staphylococcus pyogenes, the diplococcus of Fraenkel, and the bacillus of influenza; and that hectic fever and other symptoms of phthisis were generally produced by other bacteria. The mixed infection may in certain cases exert a favorable influence on the tuberculous process, and hence is not always an unmixed evil. Climatic treatment, hydrotheraphy, antiseptic inhalations, &c., are intended, in a large measure, to destroy, not Koch's bacillus, but the other micro-organisms.

The three cardinal points governing the prognosis of pulmonary tuberculosis are the common sense of the patient, the condition of his stomach, and the condition of his heart; and to these may be added another, which to my mind is of equal importance, namely, the physician himself.

Common sense in the patient comes first, for the reason that though we may be able to mollify a stomach outraged by over-dosing with strong medicines and over-loaded with indigestible food stuffs, and may also strengthen a weakened, over-worked heart, we are impotent to endow a patient with common sense, if he is not so favored by

nature. And it is in a large measure upon his common sense, his ability to see and understand the necessity of taking the best of care of himself, and of faithfully, heartily and intelligently co-operating with his physician, that the prognosis depends. Who of us has not seen a patient in a relatively good condition go to the bad simply from lack of common sense in taking care of himself and failing to observe the ordinary rules of health? Many there are who had rather "have a good time" than get well, and these, almost invariably, do have their "good time," and eventually pay the full penalty, because they would not hearken to advice. Many young people especially are doomed in this way, as they will go to balls improperly clad and dance their strength away, or to over-crowded assemblies where they breathe the vitiated atmosphere and catch "colds," or else yield to the follies of over-indulgence, especially in strong drink. In the latter case, unfortunately, they only too frequently have encouragement from some physician, who tells them to "drink as much as they can hold," and they very faithfully proceed to do so, to their ultimate destruction, for, while strong liquors may be of some service in certain selected cases, its indiscriminate use can only result in trouble, and hence should be thoroughly discouraged. Many others insist on keeping late hours and eating heartily late in the evening and just before retiring, thus losing sleep, injuring their digestion and upsetting their nervous system.

While the element of fear and selfishness in morally weak individuals assures a certain amount of proper conduct, at a time when their symptoms alarm them, it always turns out that, with the advent of amelioration or improvement, such conduct is no longer followed, and through self-indulgence or recklessness due to the lack of firmness of character, relapses occur that might otherwise have been avoided. The way to a consumptive's grave is often paved with relapses which, as a rule, are preventable, and their avoidance depends in a large measure upon the patient himself. Wealthy patients should always be cautioned that they can not purchase their recovery by the simple expenditure of money, no matter how lavish they may be, and such as expect to do this, by going the world over from one resort to another, intending to combine the pleasure of travel with their efforts for recovery, according to their own ideas of their requirements, are liable to find in the end that they have chased a rainbow. Thus the question of character is a most important one, and its influence upon the course of the disease is much greater than one, at first thought, would suppose. Including morality, will power, determination and self-control—when these are conjoined with intelligence—we have, as a rule, a patient that has not wrecked his life with vice and dissipation, and such a patient will aid us in our efforts for his recovery by conscientious and persistent compliance with our advice in all details and particulars in a manner that will assure the best possible results from therapeutic measures.

The condition of the stomach, and by "stomach" here I mean the entire digestive system, is also a very important factor in the prognosis. A good healthy set of digestive organs is an excellent prognostic feature and speaks well for the ultimate recovery of the patient. On the contrary a badly balanced digestive system is an unfavorable prognostic condition. Probably the most common gastric complication is a simple catarrhal gastritis, which is subsequent to a catarrhal condition of the nose or throat, or both. This, however, is not necessarily of serious significance, as it frequently yields to prompt and appropriate treatment, and the removal of the cause, which is most commonly over-dosing with strong medicines like creosote, the indiscriminate use of alcoholics, over-feeding or indulgences of the palate, as in the use of too much sweets, condiments, pickles, &c., the result of a depraved appetite. Naturally the more persistent the gastritis, the more serious it becomes, and when degenerative changes take place the condition is still more serious. Dilatation of the stomach is usually a serious complication, and calls for special care and attention when present.

In making a prognosis in all cases and in any stage of the disease, the general nutrition, and the apparent, as well as the inherited, resisting power of the individual, are always important, and often more so than the actual extent of the lung disease. If the physical development is good, or fairly good, and the patient is still well nourished, or if in the more advanced disease, with the emaciation that may have occurred, the muscular system has not suffered unduly, and the loss in weight has been chiefly of fat, if the skin is still well nourished, resilient and firm, if the arms and legs are emaciated disproportionately to the rest of the body, if, in women, the mammary glands have not extremely wasted our prognosis is better than when the reverse is the case, and it becomes more doubtful the more numerous these unfavorable symptoms are. Persons who have been weaklings from their childhood or youth, who have, from previous disease or inheritance, a weak constitution, who have never been up to an approximately normal standard, or who have seriously injured them-

selves by excesses, or alcoholic habits, women who have given birth to numerous children in rapid succession, or in whom the disease has developed actively immediately upon child-birth, have, as a rule, a less favorable prospect for improvement and recovery than do others where such histories are not present. The mere fact, however, that there is a history of phthisis in the family does not diminish the patient's prospect for recovery.

In close relationship to the present physical condition stand the digestive organs, and their integrity is one of the cardinal requisites to a good and unclouded prognosis. Being a disease so constantly attended by wasting, especially when it has made material advances, we are sadly handicapped if the digestive apparatus is such that adequate nutrition can not be supplied.

Progressive loss in weight is of unfavorable import, but temporary loss, while undesirable, does not influence the prognosis, if it is readily made up after the disappearance of the cause. While gain in weight is always a favorable sign, a large amount of adipose tissue is not desirable. During the active febrile periods of the disease gain in weight is not often observed, and to attempt to force it at such times is often followed by gastro-intestinal complications, with more final loss than would have occurred had no such attempt been made. If during such periods the loss is but moderate or slight, or if the patient can be sufficiently nourished to hold his own, the prognosis is not worse because no gain is made, or because temporary losses are sustained, provided the weight is regained after the cause of the loss is removed. Most favorable, from a prognostic standpoint, is a steady gain in weight, when the tissues become firm and the peripheral circulation is good. Such gain is not likely to occur so long as the patient has fever, and it usually indicates an arrestment of progressive tuberculous invasion, or of destructive processes.

Another and equally important condition to a good prognosis is a good circulation dependent upon a competent heart. A strong heart, with no complications or weaknesses, is a very favorable prognostic feature, and will be of incalculable aid in overcoming serious difficulties. Frequently, however, there are hypertrophy and dilatation of the right ventricle. These are essentially mechanical complications and are brought about by the obstruction to the circulation in the pulmonary circuit. If the compensation is perfect, then there is no danger, and the normal is gradually regained as the obstruction is removed and the lungs clear up. But a non-compensating dilatation is a serious menace to the life of the patient, and the heart must then be supported as best it may. Herein, it might be wisely added, lies one of the grave dangers of the incautious general use of exercise. Tricuspid insufficiency, muscular weaknesses, endocarditis, pericarditis, fatty degeneration and other cardiac complications all add materially to the seriousness of the prognosis.

The appearance of tachycardia in the course of pulmonary tuberculosis shows, as a rule, that the power of the right ventricle is unequal to the task of overcoming the obstruction in the pulmonary circulation, and unless this condition is recognized and measures are taken for its removal the prognosis is seriously impaired. Here again exercise is dangerous, and must be strictly limited, or better, prohibited entirely. If the pulmonary obstruction shows itself by a sharp closure of the pulmonary valves without tachycardia, this behavior of the valves indicates a strong, and probably hypertrophied, right ventricle, which is a favorable sign. The disappearance of the existing accentuation of the valve sounds, under increased dyspnoea and with a weak and rapid pulse, is indicative of the failure of the ventricle to maintain the pulmonary circulation, and may coincide with beginning dilatation. On the contrary, if the existing accentuation disappears, or if it is noted only after severe physical exercise, without undue acceleration, with a strong pulse, it shows that the pulmonary circulation is becoming relieved and is well maintained and that the heart is equal to its task.

The physician himself is a factor of great importance in the prognosis, inasmuch as he must bear the bulk of the burdens and be the moral main-stay of the patient. He should have sufficient self-control, will power and tact to gain and hold the respect and confidence of his patient, to control his actions, cheer him up and relieve his fears, when such things are possible. He must make the patient feel that he has a firm personal interest in his health and welfare, and to do so must really feel this interest, and be in full sympathy with him. At the same time he must impress upon the patient the great necessity of absolute obedience in all things, the faithful adherence to all rules and the carrying out of all instructions, as well as the value of his full confidence and perfect frankness, and the need of his most earnest and intelligent co-operation. He should try to discover the best that is in a patient, and should always give him the best prognosis possible, for such is the psychic influence of the really good physician that his opinion of the prospect of the case bears much weight in the final event. In fact, such a case as this has been noted.

Two physicians, each treating a case of tuberculosis in exactly the same physical condition, gave opposite prognoses. The one who gave the good prognosis verified it in time by curing his patient, while the other physician, who gave a bad prognosis, was in the end justified by the result. Thus it is that a certain amount of cheerful optimism is good for the patient, if at the same time we can keep them well within the bounds. Few patients possess the elements of character to such a degree that their conduct is always faultless, and most of them require the influence of responsibility to their physician, and of supervision in their daily life and conduct, to keep them steadfast and in co-operation with us, and the more strict and constant such supervision the better are we assured against relapse. Therefore, it is the duty of the careful physician to observe the strictest supervision over his patients in order to prevent any relapse occurring. The method of treatment adopted by the physician also enters very markedly into the prognosis of the individual case, but the time limit forbids a discussion of this here. Hence it is that the advice and the professional care and skill under which the patient is to accomplish his improvement and restoration may become an equally, if not more, important factor than any other.

Malposition of the Kidney.

By Guy L. Hunner, M. D., Associate in Gynecology, Johns Hopkins University.

I trust I shall be pardoned if, in the beginning of this paper, I digress long enough to express my felicity on again being the guest of this ancient and most honorable society. While a guest, I do not feel like a stranger. Your proverbial old North State hospitality would preclude such feeling even if I had not made previous visits and had happy relations with many of your members.

Nor do I feel that an apology is needed for bringing before you the consideration of this somewhat hackneyed subject. In meetings of this kind I think it most important to have new ideas disseminated but feel that we may all profit in an exchange of ideas on some of the more familiar problems of everyday practice.

The subject of floating kidney has attracted much attention in recent years. Ten years ago it would have been almost as well to tell a patient she had a tumor on the brain as to inform her that she possessed a floating kidney. Now these patients come to us, having made the diagnosis themselves or having had the discovery made by some astute neighbor, and not infrequently a patient seems to take a deal of pride in such a possession.

Again we are asked by the laity why it is that so many women have movable kidney to-day, whereas it was not heard of in their day. We have to answer that like appendicitis, it is probably no more frequent to-day than it was twenty years ago, but that it is being recognized when present, and that, like appendicitis, the malady is being recognized in its many phases. While a floating kidney, like a chronically inflamed appendix, may cause years of discomfort and ill health, yet we cannot carry the comparison farther, for the floating kidney seldom threatens the patient's life, whereas in the possession of a grumbling appendix one may be considered as living over the crater of a quiescent volcano.

We discover floating kidney more frequently to-day because of the more general practice on the part of physicians of making a thorough examination of the patient, and experience has taught us much more about the mechanics of this malady than was known by our immediate predecessors.

For our knowledge of the entire subject we owe a great debt to the painstaking researches of Wolkow and Delitzin (Die Wanderiere, Ein Beitrag zur Pathologie des intraabdominalen Gleichgewichtes. Experimentell-anatomische Studien, Berlin, 1899), two Russian observers who carefully analyzed the literature, made physiological, therapeutic, and clinical observations, and above all gave us the results of accurate anatomical studies on the cadaver, using dissections, measurements and plaster casts. By anatomical studies they elaborated the theory first presented by Weisker, that movable kidney is largely dependent upon the body form,

The kidney normally lies in the paravertebral niche or so-called kidney space, a cylindrical cavity bounded above by the diaphragm; below by an imaginary plane which about cuts the lower border of the ribs, and separates the kidney space from the abdominal cavity; dorsally by the posterior abdominal wall; mesially by the spinal column; and laterally by the ribs. This space varies from the cylindrical form because of the permanent or temporary encroachment of various organs and physical forces; as for instance, the diaphragm above, the psoas and quadratus muscles dorsally, the liver and pancreas, and the various permanent or temporary changes in form of the spinal vertebrae and the ribs.

These paravertebral niches in the normal, well formed individual are deep, and the kidneys find sufficient room, while in per-

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sons with curvature of the spine or with contracture of the lower chest the deep cylindrical space may be converted into a shallow funnel-formed space resulting in a crowding out of the kidney.

Leaving for the moment further consideration of the influence of the body form in the pathology of the kidney, let us consider a few points regarding the normal anatomy and the factors tending to keep this organ in position. As is well known, the right kidney normally lies on a lower level than the left, its lower pole often being cut by the plane of the lower costal margin. The normal mobility of the kidney is influenced chiefly by the movements of the diaphragm, and may have a range of from 2 to 5 centimeters. In men, we can not as a rule, palpate the kidneys; but in women the right kidney is nearly always palpable, and the left can be felt in many cases. Under movable kidney we class those cases which can be grasped but not pushed below the level of the navel. The kidneys with an extreme degree of mobility are classed as floating kidneys.

Important among the factors retaining the kidney in its normal position are its fasciae. Immediately enclosing the organ is the fascia propria or fascia renalis. Outside of this and enclosing the perirenal fat are the prerenal and retrorenal fasciae which may be together considered as one structure entirely surrounding the kidney and forming the most important part of its suspensory apparatus. This perirenal fascia has fibrous communication on the outside with the adrenal bodies and through this to the diaphragm, also to the peritoneum and to the lumbar walls. From the inside of this capsule fibrous septa penetrate the capsula adiposa and join with the fascia propria. The fascial strands attached at either pole of the kidney are of considerable strength. In addition to the capsula adiposa the fatty tissue performs an important function in the kidney support through the medium of the subperitoneal fat which forms a large supporting pad in the lumbar region inferior to the kidney. That the peritoneum and its folds regional to the kidney have influence on its position may be readily demonstrated during an abdominal operation when the kidney can be displaced by pulling on the peritoneum in its neighborhood. The blood vessels join the kidney at right angles and probably have but little supporting influence until the kidney begins to be misplaced. Supernumerary vessels joining the kidney at either pole have a greater mechanical advantage as supporting structures.

The adrenal bodies are larger than the kidney during infancy, while in adult life they are relatively small, but as before mentioned they have a dense fibrous connection with the upper pole of the kidney. The tail of the pancreas is sometimes attached to the left kidney through the medium of the peritoneum. That the normal intra-abdominal pressure has an influence on the position of the kidney may be demonstrated at operations, when with this force removed the kidney is found to be far more movable than before the opening of the abdomen.

Returning to the consideration of body form as a factor in movable kidney we have many considerations leading to the conclusion that this is the most potent of all the influences determining the position of the kidney.

In the first place the occurrence of floating kidney in men is comparatively rare. This is a striking fact when we consider to how much greater degree men are subjected to violent muscular efforts, such as lifting, straining, and all sudden flexions and muscular efforts. On the theory of Volkow and Delitzin the differences in two sexes is explained on the ground that in women the funnel-shaped kidney space favors a slight descensus of the kidney, and when it has once reached a level where its mid-portion corresponds with the plane of the costal margin all violent exertions which cause an adduction of the lower ribs cause the kidney to be pushed downward. Poorly made corsets and tight waist bands have the same effect. If the kidney has descended only far enough to have its lower pole compressed by these factors, their action tends to force it upwards into its original position.

The influence of pregnancy on movable kidney has been greatly overrated. Careful observation has shown that from thirty to fifty per cent. of movable kidneys occur in women who are not married or who have never been pregnant. In examining several hundred women with this point in view I was surprised to find in a hospital practice where many Russian Jews were admitted that floating kidney is comparatively rare in this class of women, although families of from five to fifteen children are not uncommon, and arduous physical labor has been their portion. In but one case have I been able to trace a definite relationship between pregnancy and symptoms referable to floating kidney. I saw this patient when her first child was three months of age and she was suffering with unmistakable symptoms of double floating kidney. The patient had a tendency to obesity and gave a history of rapid loss of weight following her child-birth. With the application of a snug abdominal binder the tenderness disappeared from her kidneys, she was relieved of her backache and tendency toward Dietl's crises, andfollowing an increase in body-

weight her kidneys remained in much better position.

The influence of trauma in the production of movable kidney has been ably discussed by Harris, of Chicago (J. A. M. A., Feb. 13, 1904). This subject occasionally has great significance in medico-legal cases. Harris's conclusions were that "severe injuries involving the kidney or perirenal tissues are seldom or never followed by movable kidney," and "a movable kidney is never the immediate result of a single trauma."

Symptoms.—Most women with displaced kidneys have no symptoms referable to this condition, and in spite of the popularity to which this condition has attained it is the duty of the physician on finding a movable kidney that is not producing symptoms, to refrain from imparting his discovery to the patient. On the other hand it would carry us beyond the limits of this paper to discuss the many definite and indefinite symptoms occurring with this malady.

Probably the most common symptom is that of backache usually occurring rather high in the lumbar region and on one or both sides. If the condition is confined to one kidney only, the patient often complains of being unable to sleep lying on the opposite side. Again the patient complains of feeling something slide out from beneath the costal margin as she turns to the opposite side, and not infrequently she discovers a movable and palpable lump in the side.

The train of symptoms may be of an indefinite character, the patient complaining of malaise, lassitude, a dragged out feeling, and inability to work. The symptoms may be of a distinctly nervous and mental type, —neurasthenia, hysteria, and hypochondriasis resulting.

Digestive disturbances are not uncommon. Dyspepsia, "bilious attacks," constipation, and mucous colitis being some of the immediate or secondary results of the movable kidney.

The patient may complain of irritable bladder; and a lumbar dysmenorrhea is not uncommon.

Perhaps the most definite and striking symptom, but fortunately one of comparatively rare occurrence, is that known as Dietl's crisis, in which the patient suffers an attack of sudden severe pain accompanied by nausea, vomiting, chills, fever and collapse. Dietl ascribed these attacks to a sudden twist of the renal vessels with strangulation of the kidney. It is probable that some cases depend more upon a twist or kink of the ureter with damming back of the urine, for we not infrequently find a greater or less degree of dilated pelvis in these cases, showing a state of more or less chronic interference with the outflow of urine. Enlargement and tenderness of the kidney is usually demonstrable, and the urine often shows traces of blood during or after the attack. Hydronephrosis and haematuria, both of an intermittent character, have been described. Occasionally these crises may occur in women who have the male type of thorax and in which the kidney is not freely movable and is palpated with some difficulty. These are the most difficult cases to differentiate from other intraabdominal attacks of pain.

I have seen no reference in the literature to the occurrence of an aura preceding the attack. I have seen two or three patients whose attacks did not come on suddenly but were preceded by slowly increasing discomfort in the side, and one of these patients had learned to ward off those of her attacks which threatened in the daytime by getting into the knee-chest pressure.

Diagnosis—After what has been said of the symptom-complex, it is scarcely necessary to say that in the diagnosis of symptoms due to movable kidney one must keep in mind affections of every other organ in the abdominal cavity. It is usually not difficult to determine the presence of a movable kidney, but to be able to say with precision that this mobility is causing symptoms is quite another matter. Diseases of the gall-bladder, and the vermiform appendix, and other diseases of the kidney are those abdominal conditions most likely to cause difficulties in diagnosis. Tuberculosis and other inflammatory affections of the kidneys are best discovered by an examination of the urine. To differentiate kidney or ureteral stone we depend upon the history of the disease, the urine examination, the x-ray, and the wax-tipped bougie. Of most assistance in excluding gall-stone and appendicular disease are the history of the disease, palpation findings, examination of the urine, and particularly the use of the renal catheter. By means of this latter instrument we can inject the renal pelvis and cause a colic which will correspond with the previous pains in location and quality if they have been due to movable kidney. We can at the same time determine whether the kidney holds a normal or an increased amount of the injected fluid, and thus say whether a dilated pelvis is present.

Not all floating kidneys causing symptoms have a dilated pelvis, but on careful investigation we are finding this condition in a surprisingly large number of cases.

Treatment—The embryonic and unsettled state of our knowledge concerning displaced kidney is nowhere better demonstrated than in the variety of opinions concerning its treatment. There are still a few

writers who see many cases of movable kidney and urge the treatment of every case without surgical intervention. At the other extreme there are a few surgeons who may be classed as overenthusiastic regarding the surgical treatment. Undoubtedly each of these classes represents a measure of truth and neither should be followed exclusively. If one would be successful in the treatment, he must be willing to make a careful study of the individual patient in order to properly differentiate between the medical and the surgical cases.

As emphasized above, our first duty is to learn whether the patient's symptoms are really referable to the movable kidney, or whether they may be ascribed to some other organ. I have seen patients with movable kidney and symptoms referable to the same, whose primary disease was in some other organ, as for instance, a pelvic organ trouble or a chronically inflamed appendix, the correction of which malady enabled the patient to regain her normal amount of fat and general tissue tone, resulting in a return of the kidney to its normal relations. No doubt most of you have observed cases with marked anemia and movable kidneys causing symptoms in which treatment of the primary condition has resulted in a complete cure.

Every case should have a careful examination of the position and size of the stomach and of the position of the other abdominal organs, and almost every case should first have palliative treatment before deciding upon an operation.

Certain patients in whom we have determined that displaced kidney is at the bottom of their complaints become surgical cases at once. To this class belong those patients whose social conditions preclude a prolonged rest with hygienic, dietary, and medical treatment. Only a few of the cases with Dietl's crises respond to the palliative treatment and those in this class are therefore generally considered as surgical. Another class in which we obtain excellent surgical results includes the cases with severe digestive disturbances, and in which the kidneys are found on palpation to be extremely sensitive.

If you decide upon palliative measures and wish your patient to wear an abdominal binder, do not turn her over to the care of a druggist or an instrument dealer. A badly fitted abdominal support may easily do more harm than good. Do not try to fit every patient with the same style of binder. Your patients' body forms differ as greatly as do the necks and shoulders of the oxen, mules and horses on your farm, and it is galling to attempt to encase them all in the same type of collar. Many a home-made binder does more good and less harm than some of the high-priced belts tolerated by some patients, because they have no means of knowing the requirements of a proper bandage.

The properly applied supporter exerts its pressure about the lower half of the abdomen in an inward and upward direction, and leaves the waistline free from compression. I use a variety of abdominal supporters, and get excellent results from a straight front corset made by a woman who has intelligence enough to vary the corset to suit the needs of the patient. I have but recently tried the strapping with adhesive plaster and am looking forward to satisfactory results with this method of supporting the abdomen in certain selected cases.

Broncho-Pneumonia Complicating Measles—Prognosis and Treatment.*

By Dr. J. G. Busby, Spencer, N. C.

In looking over the various medical journals that have come to my desk during the past year articles upon the subject of broncho-pneumonia have been conspicuously absent. This has been particularly the case regarding broncho-pneumonia as a complication of measles. Why a disease of such frequency and high mortality should receive such little notice I am at a loss to understand. For this reason more than any other I bring the subject to the attention of this Society.

There is no disease so little dreaded by the laity, and, on the whole, so carelessly handled by the physician as measles. The great prevalence of the disease and its low mortality are partially responsible for this. Measles uncomplicated is rarely fatal, but with its manifold complications it is at once one of the most dangerous and obstinate diseases with which we have to deal. Of the many diseases complicating measles the most frequent, and unfortunately the most serious, is broncho-pneumonia. More especially is this true in early infancy. The air passages are so constructed that they offer little resistance to the catarrhal conditions already present, and in the severer cases a deep bronchitis or broncho-pneumonia is the inevitable result—usually the latter. And while it is not the object of this paper to enter into a discussion of the etiology and diagnosis of the disease, I wish to refer in passing to the great importance of a rigid and thorough physical examination of the respiratory organs in all cases of measles—more especially in children under three years of age. It is only in this way

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that a correct differential diagnosis can be made between a deep-seated bronchitis and broncho-pneumonia—a point which, while it may not affect the treatment to any appreciable degree, does affect very materially the prognosis.

Broncho-pneumonia is essentially a disease of infancy, and following measles in children under two years of age its frequency is alarming. Several authorities, based on the reports of the larger children's hospitals, most of which are in the North, state that in early infancy broncho-pneumonia complicates measles in about 40 per cent. of cases. I doubt whether this is the case in the South, and more particularly in this section of the country. I have in the past year met with 16 cases of measles in children under three years of age, five of whom, or about 30 per cent., developed broncho-pneumoina. Three of the five were under one year of age. In two of my cases the respiratory symptoms were so prominent that I came near mistaking a deep bronchitis for broncho-pneumonia—a point which it will be well to keep in mind.

The pulmonary complications may arise early or may be deferred until the second week of the disease. In poorly nourished, anaemic children, broncho-pneumonia may develop even before the eruption is visible.

Prognosis —The prognosis is always grave, and in infancy dangerous to life. There is no such thing as a "touch" of pneumonia following measles. In the larger hospitals the mortality varies from 50 per cent. to 80 per cent., in private practice from 20 per cent. to 40 per cent. Two of my cases died—a mortality of 40 per cent.

The prognosis in any given case would depend largely upon the age and previous condition of the patient. Poorly nourished infants succumb very readily to the disease. Rickets and deformities of the chest would materially affect the prognosis. Thin, wiry infants withstand the disease better than fat, bulky ones.

The degree of prostration, the character and frequency of the respiration, the height and course of the temperature, the presence or absence of nervous symptoms, the extent of lung involvement as determined by careful physical examination of the chest, and most important of all the condition of the digestive organs should be carefully studied before arriving at a prognosis. As long as the function of the digestive organs remains good no case of broncho-pneumonia, however desperate it may seem, should not be despaired of, for even in the most apparently hopeless cases resolution may take place and recovery follow.

Treatment — Prophylaxis. — Too much stress cannot be laid upon preventive measures in this disease. Herein lies the great weight of responsibility. In every case of measles in young children the catarrhal conditions present should receive paramount attention. Every accompanying bronchitis should be carefully watched and every means possible employed to prevent the process from extending to the smaller tubes. To this end strict attention should be given to the condition of the sick room, which should be well ventilated, but free from drafts. The temperature should not be allowed to rise above 68 degrees or 70 degrees, the air being kept moist, if possible, by an open fire. In the prevention of pulmonary complications nothing is so important as an abundant supply of oxygen. It should be the duty of every physician to advise mothers against the too frequent custom of sweltering children with measles, in order, as they think, to bring out the rash early—a think that can do no possible good, and in my judgment the cause in a large percentage of cases of pulmonary involvement.

Changing from room to room, and from the crib to the nurse's arms is very beneficial. The chest should be well protected, rubbed frequently with camphorated or olive oil, or counter-irritation employed.

During convalescence from measles great care should be exercised against too early exposure. The child should be given liberal doses of cod liver oil, and even in the most favorable weather should not be allowed to leave the house under a week or ten days from the time the eruption has disappeared.

Careful attention to these details will, in a large number of cases, prevent pulmonary complications.

Treatment —In treating broncho-pneumonia it should be borne in mind, as has been previously mentioned, that the disease may come on very early in the course of measles, even before the eruption is manifest. It is a matter of the greatest importance that a diagnosis be made early, and as soon as the co-existence of broncho-pneumonia is established the gravity of the disease should be promptly recognized and the closest attention paid to every detail of treatment. The condition of the sick room as to ventilation, temperature and the suitable moisture of the air must be even more carefully watched. The child's clothing and the bed covering must be adapted to the season of the year, the weather and the patient's habits and strength. Even slight indiscretion in the points just mentioned may greatly aggravate the disease and render it less amenable to treatment.

Before beginning treatment directed to the respiratory organs every precaution should be taken that the digestive tract be gotten in the best possible condition, re-

membering that when the crisis comes the outcome of the case may depend upon the proper functioning of these organs. Not only the diet but the entire medication must, therefore, be rendered subordinate to the condition of the digestive tract.

Local Treatment —The local treatment consists in the application of an oiled-silk jacket and the employment of counter-irritation over the chest. A jacket of this material not only keeps the chest at a uniform temperature and produces a moderate degree of counter-irritation, but renders the patient much more comfortable. The old-fashioned poultices so much in vogue once are now rarely employed. The advantages of the oiled-silk jacket are very obvious. It allows free access to the lungs for physical examination, does not require frequent changing, renders easy the application of counter-irritants, and what is most valuable of all causes little or no pressure upon the chest. The oiled-silk jacket is contraindicated in cases attended by very high temperature.

The counter-irritants usually employed are mustard, turpentine liniment, camphorated oil, and Tr. Iodine. In infants and young children mustard has given me the best results used in the form of the mustard paste. For a child of one year one part mustard to five or six of ordinary wheat flour is the right proportion. This should be left on from 5 to 15 minutes each time, and should be changed every three hours. The entire chest should be covered, and after each application the skin should be dusted with powder.

Expectorants —The value of expectorants in infants is very doubtful. In older children they are often of great service. In the former where expectoration is absent and the secretion finds its way into the alimentary canal, frequently setting up no little disturbance, the situation is best met by minute doses of calomel.

Where expectorants are deemed expedient the best preparations are the chloride and carbonate of ammonia, syr. squills, syr. senega, and creosote, and where the temperature is very high may be advantageously combined with the liquor ammonia acetat. Cough mixtures containing opiates are usually harmful and should not be used except where the cough is obstinate and painful.

Emetics — This class of remedies should be avoided wherever possible; except, perhaps, in those cases where the secretion is abundant and viscid and interferes with the respiration. Of these the syr. ipecac meets the indications best.

Inhalations —For the stimulation of bronchial secretion, relieving an incessant and obstinate cough, and promoting the general comfort of the patient, nothing is so beneficial as steam inhalations. Early in the disease lime-water vapor or Tr. Benzoin Co. should be used, and later creosote, oil eucalyptus or turpentine. Of these creosote deserves first place.

Respiratory Stimulants. — Respiratory stimulants are generally needed early in the disease, especially should the broncho-pneumonia come on late in the course of measles after the patient's strength has been partially exhausted. The mustard paste already referred to aids greatly in relieving the respiratory embarrassment. Among the drugs at hand, but which as a rule are disappointing, strychnine and atropia are the most valuable. Gr. 1-200 of strychnine and gr. 1-400 of atropia should be given a child of one year, and repeated as often as the respiratory symptoms demand. Where respiratory failure is imminent a hot mustard bath accompanied by vigorous rubbing is timely and will sometimes relieve the situation where all other means have failed.

Cardiac Stimulants.—In broncho-pneumonia following measles it is imperative that cardiac stimulants be begun early, more so than if the disease be primary. The question of stimulants in the various pneumonias has been the subject of much study, and it is not my purpose to discuss the merits and demerits of the various drugs commonly used. In the pneumonia under consideration strychnine and alcohol have given me the most satisfactory results. For a child of one year gr. 1-300 of strychnine may be given as often as every three hours. One-half to one ounce of whiskey or brandy may be given in 24 hours, always diluted with six to eight parts water. At the critical stage of the disease twice this amount may be given. Some authorities claim much benefit from adrenalin, digitalis, caffein, and ammonia, but as a routine practice they are greatly inferior to strychnine and alcohol.

In attacks of cardiac failure with engorgement of the pulmonary vessels nitroglycerine is indicated, and sometimes apparently hopeless cases are tided through a critical period by its timely use. Gr. 1-500 nitroglycerine may be given every hour to a child of one year.

Antipyretics.—The fever in broncho-pneumonia does not demand special treatment nearly so often as the other forms of pneumonia. The normal range of the temperature is from 102 degrees to 104 degrees, and so long as the fever remains within this limit antipyretic measures are not, as a rule, indicated. As to the coal-tars we are becoming a little more conservative, and where hyperpyrexia is present and the nervous symptoms pronounced small doses of

phenacetine or antipyrine may be cautiously given. However, the routine use of these drugs is to be carefully avoided. It has long been an established fact that cold water is the best and safest and most convenient antipyretic we can employ. Except in extreme hyperpyrexia it is not necessary to resort to the tub bath in the pneumonia of infancy. Cold sponging and the use of the ice cap are usually sufficient. Ice poultices to the chest have not met with very favorable consideration here as in the pneumonia of adults. Quinine has been much lauded as an antipyretic, and even by some as a specific. This is certainly not the case in broncho-pneumonia.

For the relief of the *nervous symptoms* tepid sponging, and where the cough is extremely troublesome and not relieved by inhalations, small doses of heroin or codein may be given.

As convalescence becomes established remedies directed to the maintenance of the general health are strongly indicated. The tonics best suited to this condition are cod liver oil, arsenic, and syr. iron. Wherever possible a change of climate should be advised for a short period and the case carefully watched until the close. In this way we may be often gratified by witnessing a complete restoration to health.

In discussing a subject of so great scope I could not, in the short time allotted me, do more than touch upon the salient points in the prognosis and treatment of this important disease. It has not been my purpose to present anything new upon the subject of broncho-pneumonia, but rather to call attention to the great frequency with which it occurs in the course of measles, the dangers attendant upon it, and the possibility of its prevention. Should pulmonary complications arise know it early—they demand prompt attention. And in conclusion I would urge against any routine or fixed plan of treatment. The course of the disease and the indications to be met vary markedly in each particular case. In no condition is a thorough and ready knowledge of therapeutics more necessary. It is only by the most careful study of the case, watching closely for the danger signals, and applying promptly and persistently the proper remedies that we can hope for a lower mortality in the pneumonia of infancy.

Modern Methods and Aids in the Study and Teaching of Human Anatomy at a Minimum Cost.†

By Lewis M. Gaines, A. B., B. S., M. D., Professor of Anatomy, Medical Department Wake Forest College, Wake Forest, N. C.

It is unfair to the prospective student of anatomy to accuse him of satisfaction in a mediocre course or of incapability to enthuse over really high ideals of acquirement in this field. One sometimes sees the statement that most students merely want a course which will enable them to pass the State Board examination, that they are then willing to repudiate any snatches of anatomical knowledge they may have gathered and possibly even sorted, and that the majority are devoid of a live interest in their work. I am convinced that this is largely erroneous, if proper methods of presenting the subject are employed. Many students attend the medical schools of moderate fee and convenient distance, perforce, and if financially able, would gladly seek the most expensive centers of instruction. Again, a large proportion have dormant ideals, and the great opportunity of the instructor lies here, and at the same time his responsibiity, for to his door should be laid the charge that so many students desire an inferior course in anatomy. For this reason I feel justified in the statement that there should be no good excuse for not giving a thorough scientific course in anatomy and one of a high order of excellence in any place where facilities exist which justify the existence of a medical department, whether it be an independent medical school or part of a college or university. There are certain requisites for giving such a course which are not unattainable, certain methods of more or less recent introduction entirely feasible if properly interpreted, adapted and applied. And they may be adapted to suit the needs and income of the small as well as the large anatomical department.

Collection of Material.—Obviously the prime requisite is the acquisition of properly prepared anatomical material. The collection of material has from time immemorial been a difficult task and until recently fraught with many almost insurmountable difficulties and dangers. At the present time in this country the laws governing the disposal of cadavers to anatomists are on the whole satisfactory. In some States, however, this is not the case and should be made a live issue. It is hard to understand the zeal of certain so-called charitable organizations who become indefatigable in opposing the turning over of pauper, va-

† Read before the North Carolina State Medical Society at Charlotte, N. C.

grant and criminal dead to medical schools, while these same zealous individuals would in all likelihood be the first to condemn anatomical ignorance on the part of physicians. Nothing is truer than Barker's remark that in medicine anatomy has long ago won its place as a science essential as a basis for all subsequent medical studies. And it is impossible for the rising generation of physicians and surgeons to grasp anatomy without thorough training in the dissecting room. It is somewhat easier to understand the shrewd political reasons that guide even so-called reputable physicians in opposing legislative measures which will insure an abundant supply for the anatomical laboratory. The combined efforts of the charity organizer and the crafty politician operating chiefly through the inflammable public mind have reduced our supply in some States to a minimum and created the necessity—as it always will—of resorting to more or less unpleasant methods, which reflect discredit on the anatomist where it does not belong, and not on the law makers where it does belong.

Preparation and Preservation of Material—The preservation of cadavers for dissecting has been greatly improved in the past few years. The old dissecting hall with its evil odors, careless methods, brutal exposures and disgusting details has no reason for existence today. The character of the dissecting room is a good index of the efficiency of an entire medical school. The anatomical laboratory can be made as cleanly and attractive as the chemical laboratory, or the biological or the physical workshop. Indeed, Dr. Barker hardly exaggerates possibilities when he remarks that "The material can be so well preserved that even the fragrant Havana is said to be more offensive to some sensitive souls than are the odors from the well kept dissecting room."

For successful preservation of cadavers there is necessary (1) a certain equipment, (2) a definite careful technic.

(1) Equipment: The equipment now installed in my own laboratory at Wake Forest, and which has proven entirely satisfactory, is as follows: (a) An hydraulic pressure tank which consists simply of an ordinary water boiler with inlet and outlet controlled by simple stop-cocks and at the top a pressure gauge and a pipe for conducting the compressed air. The apparatus is simple and easily controlled. (b) Injection flasks from which the embalming fluid and later the coloring matter is forced into the arteries. The flasks are connected with the pressure tank by ordinary rubber tubing while they are joined to the arteries by a series of tubes in a fashion presently to be described.

(c) Chemicals. By far the best injection material is a mixture consisting of equal parts of glycerine, 95 per cent. alcohol and pure carbolic acid. Good results are obtained with the straw colored carbolic acid (92 to 97 per cent.) costing only forty cents a gallon. The crystal form is more satisfactory, however. There are many other embalming fluids in use, but they are all subjected to criticism as indicated in a recent article by Mall. For injecting the arteries nothing could be more satisfactory than the method now in use at the Johns Hopkins Anatomical Laboratory. The fluid used is made by adding to a saturated alcoholic solution of gum shellac enough ultramarine blue to give it a decided color. The advantages of this mixture are its low cost, the ease with which the granules pass to the finest arteries, and the fact that the solution can be injected cold and can be kept constantly and indefinitely in stock without difficulty.

Technic:—Cadavers should be received as soon as possible after death, though if kept in a cold atmosphere they may be several weeks old before embalming. After much experimenting it has been found to be most satisfactory to inject both femoral arteries, proximally and distally. Four glass cannulae are thus inserted into the two femoral arteries, securely tied in place and connected with the pressure flask containing five to six quarts of the embalming fluid. The air pressure from the tank is gradually applied till the gauge indicates a pressure of eight to ten pounds to the square inch. This is a sufficient pressure consistent with safety. It is always a good precaution to open the femoral veins beforehand, as this insures a better penetration of the embalming fluid. Ten minutes, as a rule, suffice, for the complete injection which may be noted by the appearance of minute bleaching lines along the course of the small cutaneous vessels and frequently by a frothy bubbling in the pharynx while at the same time the tissues become firmer. After the embalming process is completed the tubes are left in place and from four to twenty-four hours later a fresh pressure flask containing about three quarts of filtered ultramarine blue mixture is connected up and its contents injected under six to eight pounds pressure.

The cadaver is now thoroughly and completely smeared with vaseline, next which is put a layer of toilet paper to exclude the air. The whole is wrapped in cheese cloth. Bodies prepared in this way will keep indefinitely in ordinary temperatures and be perfectly good for dissecting at any time.

Moreover, the skin is soft and pliable and the tissues ideally preserved for recognition and minute dissection. The method outlined is based on the one in use at the Johns Hopkins Anatomical Laboratory and completely described by Mall in a recent paper. I feel assured by experience that this method can be practically installed and used in the smaller schools of medicine at a low cost and with the gain of a high grade of efficiency. Mall has effectively demonstrated that the expensive cold storage apparatus is not essential, and that even the storing of bodies in vats is not necessary. However, it is always a good plan to have a vat available. A zinc lined vat holding fourteen adult bodies and filled with a three per cent. carbolic acid solution should not cost much over fifty dollars, as I have demonstrated in my own laboratory where I have installed one similar to those in use at the University of California and described by Flint. The vaseline preparation is of course omitted upon bodies consigned to a vat. They may, however, be removed at any time, smeared and wrapped and laid away on a shelf.

Allotment of Material.—It should be the aim to provide a sufficient number of cadavers so that six men are at work on each. The body is thus divided into three parts, viz.: (1) Head and thorax, including the neck and thoracic viscera, (2) upper extremity, including the muscles attached to the scapula and those of the back, (3) lower extremity, including the abdominal wall and viscera and the perineum. The study of the central nervous system, involving as it does a special technic is not prosecuted as a part of gross anatomy, but as a part of the work in histology.

Each student is held strictly responsible for his part as regards its intelligent dissection and its preservation. To this end he is furnished a plentiful supply of cheese cloth. At the close of each dissection period he moistens his part thoroughly with a mixture consisting of carbolic acid twenty parts, glycerine thirty parts, water one thousand parts, and then wraps the whole in six or eight layers of moistened cloth. It is well to add a layer of unbleached domestic previously soaked in linseed oil as an outside covering.

According to the division of parts indicated above, the students are able to work advantageously together. In case the cadaver is under size or half grown it is more convenient to make the assignation to only four men.

Equipment—Dissecting room. There are three essentials for a good dissecting room: cleanliness, good light, good ventilation. The room—or better rooms—should be located on the upper floor, thus rendering them more private and allowing the construction of sky-lights. The apartment should be provided with plenty of windows and a generous supply of fresh air insured. The furnishings of the room are simple. The best tables can be had at a very low cost. I have found the most convenient dimensions to be 39 inches high, 30 inches wide, 6 feet 4 inches long. They should be covered with zinc and the top should slope toward the center, which is pierced by an opening two inches in diameter through which fluid may drain into a bucket suspended underneath. Book-stands are essential and easily constructed. Each student should have at least one on which to place his atlas, manual and descriptive anatomy, for the best study can be done in the dissecting room with the books open and the dissected part exposed to view.

The instruments needed for dissection are, of course, furnished by the student with the exception of saw, mallet and chisel, bone forceps and such others as may be only occasionally needed. The selection of his instruments should not be left to the fancy of the student, but he should be advised to get only the best. I have had put up for me by a well known Baltimore firm a set of instruments made of the very best material. Each set consists of one cartilage knife, two dissecting scalpels, two scalpels with straight edges and sharp points, two pair of scissors, one strong blunt probe after Mall's model, one large dissecting forceps, blow-pipe, hook and chain. These instruments are neatly packed in a substantial case and exactly meet the requirements, while the cost is very moderate.

The osteological outfit should consist of a sufficient number of disarticulated skeletons for each two students to have one, which is to be kept in their possession throughout the session for constant study and reference. In addition a male and a female skeleton should be kept in the dissecting room for ready reference. A disarticulated skull and a specially prepared temporal bone showing the middle ear are indispensable. A thorough knowledge of osteology can be gleaned from this outfit, and the expense of acquiring it is moderate.

There are a vast number of most excellent charts and models which add to the efficiency of the dissecting room. With the exception of a few my observation has been that their value to the average student is limited. The exceptions are included under certain ingenious models of the brain and organs of special sense in which region the average student seldom successfully delves when the cadaver is his only resource. The provision, then, of the necessary charts

and models need not be a financial tax, and gradually such charts as might be classed under the head of luxuries may be added.

One of the most valuable recent additions to anatomical study is the introduction into the laboratory of serial cross sections of the entire body. These preparations studied in connection with the daily dissection are of great value in establishing in the student's mind a knowledge of regional anatomy and many important relations which might otherwise fail to be impressed upon him.

Books are as much the student's tools as are his instruments and no less indispensable in the dissecting room. With the latter he learns to cut, with both to dissect. The word *stash* and the picture that word calls up, is forever prohibited. A student should be provided with (1) a standard descriptive anatomy, (2) a practical dissecting manual, (3) if possible with one of the several excellent atlases now to be had. It is not my purpose to review the various text books. But I do wish to emphasize the importance of a medical library containing them all. The instructor should be familiar with the good points in each, refer the students to them and thus instill a thirst for independent work and research in this field. There is hardly a cadaver that does not present some fairly marked variation in structure from the usual description, and students inspired with the thirst for discovery will acquire much greater interest in their work, and thoroughness and care in their dissection if spurred to it by this incentive. A library which shall not cost over $75 to $100 is a necessary equipment for this work. The library should include some of the best anatomical journals which are such an efficient stimulus to work and interest.

While it is hardly in the province of this paper to discuss methods of instruction, I desire to call attention to certain principles not universally adopted.

1. In regard to the value of lectures. The formal anatomical lecture is becoming obsolete. It has become apparent that the time is vastly better employed by using all that is available in a maximum of actual dissection *by the student*—under the watchful eye of the instructor, accompanied by frequent demonstrations of prepared dissections, cross sections and models. When one considers the excellent text books and manuals of anatomy produced by the master minds in the science and freely accessible to the student, it would seem superfluous to weary—not to say disgust—him by a tiresome rehash. The coherence of the class may, I think, be to advantage preserved by definite quizzes, say once a week. The majority of the questions, however, should be put as the instructor makes his daily rounds. These questions should be accompanied by well directed hints about the work and—what is so important to many students of anatomy—encouraging words. Our advances in the preparation of material and construction of models are largely responsible for this distinct advance in methods of instruction.

2. In regard to the value of drawing. After an extensive experience with students of anatomy, Dr. Barker embodies this remark in the introduction to his splendid *Laboratory Manual of Dissection:* "Any one who can write can draw." The value of drawing is not in the picture but in the making of it. Structures and relations are impressed upon the student and retained by him in a most satisfactory manner, and at the same time it encourages exactness as nothing else can.

In conclusion may I add that the value of anatomy is two-fold. First, there is obvious its necessity as a fundamental science, upon which is based the intelligent practice of medicine and surgery. This, one might call its concrete value. Secondly, there is no branch in the entire domain of medicine which so trains the student to exactness and keenness of observation—qualities so essential to success in after years. Show me the student who with unwearying eye and careful precision accomplishes a difficult dissection and unravels the branches of Meckel's ganglion and those fearful petrosal nerves, and I will show you a man who in after years will detect the first rale in the victim of tuberculosis and save many a life by his attention to detail.

Cotton-Seed Oil in the Treatment of Pulmonary Tuberculosis.

By Dr. C. D. Thompson, Lowesville, N. C.

Mr. President and Gentlemen of the North Carolina Medical Society:

I wish to take a few minutes time in the presentation of a short paper on a subject that I have never heard brought up or discussed by this body, that is the use of cotton seed oil in the treatment of Pulmonary Tuberculosis.

I have used it in the treatment of these cases for about three years, deriving much benefit from its use in most cases. I give it in properly selected cases, those seen in the early stages, in doses from one-half to one ounce combined with beechwood creosote in proper dosage, after meals, increasing to toleration. After using this awhile the cough checks wonderfully and most patients improve to a most marked degree. Of

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course I treat any symptoms that may arise with suitable measures, as indigestion for which the diet is regulated and tonics and digestants are given as indicated. If there is any heart weakness to require treatment I use stimulants in the form of whiskey, strychnine, etc. I have noticed that in cases where night sweats were present that after using this treatment for a while the sweats subsided. No patient using the oil has objected very much to its taste. I have been using the ordinary purified oil, but think an emulsion would be more palatable. I have used the oil in the treatment of several cases, one of which I wish to mention. It will illustrate the benefit derived from its use.

The case of a man of spare build. weight at beginning of sickness about 117 pounds, no hereditary taint of consumption, family history good. Patient had been in good health until July 4th, 1903, when he had a chill with elevation of temperature in the afternoon for some time. He became better and worse at intervals until in November when he grew very much worse, was confined to bed, developed a cough—he had had none before—microscopical examination showed tubercle bacilli in sputa. There was some soreness and rales in a small spot in the left lung and cough became very troublesome especially at night, keeping him from sleeping unless something was given to relieve it. He also began having night sweats and some anorexia. At this stage of the case I began the use of cotton seed oil and creosote increasing the creosote to 15 drops given in the oil after meals. In a short time the cough began to improve, the sweats became very much less and the soreness had nearly all disappeared. I continued the treatment until some time in March, 1904, with great improvement of all symptoms, so much improvement that the patient was able to be up and about, staying in the open air a great part of the time. The sweats ceased, cough had almost entirely ceased and soreness about all gone. Patient was so much improved by this time that he decided to move to another part of the State where his relations resided.

He however continued the treatment for some time making apparently a complete recovery. I recieved a letter from him a few days ago in which he said that he had just closed an eight-months school, taught a seven-months school last year, and that his chest expansion is four and one-half inches, and that his weight is 122 lbs., more than it was before he got sick in 1903. It having increased under the treatment from 107 lbs., his weight at one time while he was sick, to 122 lbs. at the present time. Several examinations have shown no tubercle bacilli. Would like to know if any one else has used this treatment, and if so, with what success.

Notes on Puerperal Eclampsia.*

By Raymond Pollock, M. D., Dover, N. C.

In presenting this paper I fully realize that I have chosen a subject whose very depth stands as to yet unsounded. In expressing my opinion, it will be based upon the observation of the fourteen cases that I have been so fortunate as to have attended, as well as from the views of the different authorities that I have consulted. My practice being in a mill town and surrounding country, the inhabitants of which are of very moderate means indeed, has led me to some homes that were barely more than hovels, and the very thought of an operation, much less the work itself, was filled with the horrors of sepsis. And had I thought that any one of you were watching me in my procedures, I am sure that I would have become so much embarrassed as to have had to have discontinued. However, to have had you placed in my stead with time fast speeding on its way, and with it the cycle of another one of those dreadful and heart-rending convulsions approaching, possibly the old adage, that "necessity is the mother of invention" would have presented itself, and you, too, would have accepted a course that was not one of election, but rather perforce. How far back will it take some of you when you recall having had either a surgical or obstetrical case five or ten miles in the country which you were hastily summoned to see, to find it in a small, scantily furnished, poorly ventilated, dirty room, with no means of preparation for yourself or instruments? Did you go back to your office to sterilize your instruments, or did you scald out the wash pan, prepare your hands, then wrap up the instruments in one or more towels, then put them in a dish pan, if indeed you were lucky enough to find one, or did you have to lay them on one side and sterilize by having some one to slowly pour scalding water over them until they were ready for use? If you have done the latter I shall not need to beg for leniency, and while faulty in the eyes of those that can only see hope for recovery in the modern maternities of today, let me state that in the pursuance of such work I have lowered the mortality rate as given by Winckel in not having lost one per cent.

Eclampsia is an acute disease occurring in women in pregnancy, in labor, or in child-bed, often sudden in onset, rapid in

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progress and characterized by convulsions, loss of sensation and consciousness, ending in coma (Bailly).

Etiology —In mentioning the predisposing causes of this dreadful malady, it is to be remembered that there is a universal liability to eclampsia in all pregnant women, regardless of age or as to whether it is the first or subsequent pregnancies. The primipara, and especially the one who has passed the 30th year, seems more prone than her sister of tenderer age.

Pluriparity.—Plural pregnancies seem far more liable than when pregnant with a single foetus.

Heredity.—Elliott and Lohlein have both recorded cases in which the mother and three daughters were similarly attacked.

Season —It is most often seen in summer, fall and spring-time.

Statue.—A short, stout, thick-set form of strong muscular fiber and short neck, seems far more liable than the more delicately built; however, the latter is by no means exempt.

Neurotic Temperament.—Contracted pelvis with its secondary effects from pressure and prolonged labor.

Luxurious Living —As gouty or of rheumatic tendency.

And Lastly.—The over-worked, poorly fed, sallow complected, in which you would naturally expect to find defective metabolism and faulty action of the emunctories. As to the essential cause I shall accept the theory of Rievier's that it is an auto-intoxication due to some unknown toxin, which may be the end product of destructive metabolism, or the intermediate products that have accumulated in the circulation because of failure on the part of some organ or organs, probably the liver, thyroid gland, or kidneys, to convert them into a useful or harmless body.

Admitting then that we have the required toxine to act through the agency of the nervous system, I shall not go into detail or present the theories of Traube-Rosenstein, Macdonald, Osthoff and others, who dispute the condition of the brain, or more than mention the experiments of Lange, who found that when a piece of thyroid gland just sufficient to continue life in the non-pregnant animal was allowed to remain in a pregnant animal an insidious kidney disease develops, one that may result in convulsions and coma, which are distinct from the convulsions of tetany and are not relieved by thyroidin,—for they all agree in the one point that anemia of the centers plays the important role in the production of convulsions, and has led them to divide the convulsions into two classes, viz:

1st. Those of centric irritation due to the toxine in the blood acting directly on the centers producing congestion, resulting in oedema, followed by anemia. The suddenness of onset, frequency and severity of the paroxysms, the depth of the coma being in direct proportion to the velocity of the blood.

2nd. Those from peripheral or reflex causes, as protracted labor due to contracted pelvis, excessive pain, distended bladder, abnormal position or movements of the foetus.

Lusk says that special source of irritation is derived from the uterine contractions, and the observation of Braxton Hicks shows that this irritation is not confined to the time of labor, but occurs during the entire duration of pregnancy and continues throughout the retrograde changes of childbed period.

Mrs. X., white, age 31, multiparae, short, thick-set form, sallow complexion, of nervous temperament, history of eclamptic attacks in the four previous pregnancies. I attended her the latter part of the second month in the fifth pregnancy. She complained of pain, which she described as coming from the back part of the uterus, seemed to be tearing, followed by a pressure down and backward, headache, which she described as indescribable, first general, with sensation of pressure on the brain located in front, temperature of 102-0. F., pulse rapid, blindness, flashes of light, urine scanty, highly colored, loaded with albumin. She passed into violent convulsions, which lasted 24 hours only as controlled by inhalations of chloroform, hypodermics, morphia, chloral, and bromides per rectum. She had a repetition of previous attack in the fourth month, when I chloroformed, dilated os and removed embryo and its appendages. Recovery was rapid and uneventful. A year later I was called to see her in the second month of her sixth pregnancy; found her complaining as in previous attacks, flowing slightly, had light attack, aborted and was relieved. I advised laparotomy, when it was found that the uterus and its appendages were adherent to the surrounding tissues.

Pathology —Autopsies reveal but little evidence of the causes of eclampsia. In the brain you may not find any changes whatever. There may be a turgidity of the vessels, or an effusion of serum on the surface, at the base, and in the ventricles.

Kidneys —You may find changes characteristic of all forms of nephritis. Schauta in 28 cases of fatal eclampsia, found nine anemic, sixteen with Bright's disease, while in three the organs were healthy.

Liver —Schmorl reports a series of seventeen cases, in every one of which serious

changes in the liver parenchyma was found post-mortem, and consisted of necrotic areas of hemorrhagic or anemic character. Macroscopically, the liver presented somewhat the appearance of acute yellow atrophy. Stumph suggests that the liver disturbances are of secondary nature.

Diagnosis.—The symptoms of eclampsia are so pronounced that once the disease has been seen there is very little likelihood of its being mistaken. The diseases with which it is most liable to be confused are hysteria and epilepsy. In hysteria you have a previous history of nervous or hysterical attacks, consciousness is only partially lost, tongue rarely bitten, no bloody, frothy saliva escaping from the mouth, the face muscles are rarely involved, the muscles of the back is the principal seat of the spasms, the trunk being drawn back into an arch. The seizures last much longer, ending in complete recovery of consciousness, with sobbing, crying and screaming. Recurrence of attacks are not frequent.

Epilepsy.—Previous history of epileptic seizures, absence of the epileptic cry, breathing is sibilant instead of stertorous, and the muscles retaining their tone instead of becoming completely relaxed as in eclampsia.

Prognosis.—The contrast in the maternal mortality rate with that of Hunter, Lowder, and other teachers who were accustomed to state in their lectures that more than half of their cases died, Jacobs who said the cases were almost always fatal, scarcely any example being known of patients having recovered, must be a source of much gratification to the obstetricians of today. While every case should be looked upon as serious, with the immediate indications for treatment kept clearly in view, provided we act promptly, I can see no reason for a high death rate. We may have been called in late, and found the paroxysms frequent and severe, coma deep and prolonged, heart labored, pulse rapid and weak, respiration shallow, temperature high, jaundiced, urine very scanty, highly colored, loaded with albumin of anuria. If the patient does not respond to stimulation, then indeed has the prognosis assumed its gravest character.

Lohlein considers the mortality rate 19½%
Davis " " " " 15%
Winckel " " " " 7-10%

Fatality of the foetus greatly exceeds that of the mother, and depends in part upon the promptness in which labor is terminated. Vinay thinks that death is due to the toxine being transmitted from the blood of the mother to that of the foetus, and cites instances of children being born with rigidity of the muscles. Davis substantiates this in recording a case in which the infant was delivered by Caesarean Section. It was given every advantage, having a wet nurse and skilled care. It died in two weeks from toxemia, undoubtedly the result of the mother's condition before birth. Cazeaux records several examples in which the convulsions attacked the foetus in utero. Just how he observes as much I am unable to determine. Again, it is held by some that death of the foetus is due to asphyxia, caused by the accumulation of carbonic acid in the blood. Lusk says that fully 50 per cent. perish from this cause. Parvin gives the mortality rate from 26 to 70 per cent. I shall have to admit of a loss of 60 per cent.

Symptoms.—Oft times eclampsia is ushered in without percussory symptoms. However, it is generally the case that the patient is suffering with oedema of the lower limbs, genitalia, hands, and face, and for several days previous to the onset they complain of headache, usually located in the front and on the sides, seldom in the occiput, slight at first, but becomes constant and intense. There is a sensation of pressure on the brain, dizziness and vertigo, and the patient is unable to walk straight. She complains of blindness, cannot see objects plainly, and sees flashes of light. She may become irritable or despondent. There is a confusion of mind, and saying and doing things of which she is unconscious.

Mrs. D.—Spent the evening with her mother. She returned home alone, assisted in the preparation of supper, ate very lightly and was taken violently ill just afterwards. Upon her return to consciousness three days later she remembered nothing of what had transpired while at her mother's, coming home, or assisting in the preparation and eating of supper.

These symptoms may progress successively, or it may burst forth in all of its violence without any warning of the oncoming attack. When the eyes become set or fixed, the patient lies perfectly motionless, then there is slight tremor or jerking of the whole body, the eyes move up and down rapidly, finally resting under the half closed upper lids with pupils dilated. The eye-lids open and close rapidly, remaining partially closed, showing only the whites of the eyes. The angles of the mouth are drawn and fixed in a convulsive grin, the jaws become clinched, the head is drawn back, or toward one shoulder, and, as the spasms rapidly pass to the muscles of the limbs and trunk, she will rest on the back of her head and heels, or be turned over to one side; the arms are rigid and extended, forcibly carried across the chest, with thumbs fixed on palms, fingers close over them, legs extended or flexed at the knees, trunk rigid and arched, face first

pale, becomes flushed and greatly cyanosed. The diaphragm and muscles of the chest are involved. The veins of the neck become congested and distended, respiration is arrested, the heart first fast and excited, becomes weak and intermittent, the body is bathed in a cold sweat. There may be involuntary micturition or defecation. This stage only lasts a few seconds and again passes into the *clonic spasms*. first observed in the muscles of the face, which twitch violently, the lower jaw opens and closes rapidly and with force injuring the protruding tongue, unless protected. Breathing is irregular and hissing, as the muscles of the chest and larynx are involved. Bloody, frothy saliva is blown out with each forcible expiration. The limbs at first rigid and fixed gin to jerk, the whole muscular system is thrown into rapidly recurring convulsive jerkings, or spasms, which gradually subside. The body relaxes, the eye-lids close, mouth drops open, from which escapes blood-tinged and frothy mucous, breathing becomes deep and stertorous, she passes into a state of coma, the depth of which is in proportion to the frequency and severity of the seizures. The attack usually lasts from one to five minutes. Tarnier records one lasting twenty minutes. Dupal records one case that had 160 convulsions. Ahlfield had a patient to recover that had 81 convulsions. Usually there is from four to twenty. During the attack there is complete loss of sensation and consciousness.

If the paroxysm be light she may regain consciousness during the interval, though remaining somewhat dazed and somnolent. If severe and frequent and coma deep, she does not recover consciousness at all, but passes from one to another perfectly oblivious of her conditions and surroundings. Attacks usually terminate within 36 hours, coming to their right mind. They rapidly progress to recovery, or they may become maniacal, lasting for weeks. Death results from asphyxia, due to prolonged tonic convulsions or from the combined effects of asphyxia and exhaustion.

Treatment.—It should prove our duty to examine the urine semi-monthly or oftener in the latter months of pregnancy, and should we find persistent albuminuria we should institute a *prophylactic* or *preventive* treatment at once. Restrict her to a milk diet. Give dieuretics, and plenty of pure, natural alkaline, or lithiated water. Laxative or purgative to keep the bowels moving freely. Keep skin active by frequent hot baths. Give the tincture of the perchloride of iron in full doses three times a day for its tonic and dieuretic effect.

When the attack comes on we should see that the tongue is protected by placing a handkerchief or napkin between the teeth, and not by the use of a spoon handle, piece of wood, or anything that is hard, as was once practiced. Have the clothes loosened, prevent the relatives and friends from grasping and forcibly restraining her movements, see that she does not fall from the bed, or otherwise injure herself. As the attack passes off turn the head to one side, keep the mouth and pharyngeal cavity as free as possible of the bloody, frothy mucous, prevent the tongue from falling backward while in the comatose state. Secure copious evacuation of the bowels by the administration of a brisk cathartic, give a high, hot stimulating saline enema through a rectal tube or large catheter. Catheterize. Hot bath at a temperature of 104 0-F, which is gradually increased to 112 0-F, the patient is then removed, placed between warm blankets and made to perspire freely.

Chloroform should be used to prevent and control the paroxysms, but not carried to deep or prolonged anaesthesia. *Morphia* hypodermically in doses from a quarter to one grain as needed.

Chloral and bromide of potassium in 30 grain doses each per rectum every two to four hours as needed.

From their depressing effects, as well as a lack of satisfactory results in their use, I shall only mention the names of veratrum, pilocarpin and caffeine, and not commend them for your consideration.

Venesection should be employed for the relief of vascular tension, which diminishes the irritation of the vasomotor and convulsive centers, its effect is most marked and in my experience is transitory. I think the bleeding should be copious, and that the transfusion of normal saline solution should be practiced at once, that it may induce dieuresis, replace the heated toxic blood, and temporarily diminish further intoxication of the centers by depletion of serum from the tissues, which follows to equalize pressure and compensate for the loss.

Eclampsia occurring during the later months is not an indication that pregnancy should be interferred with or terminated, as it is not infrequently the case that she will recover and go to time, a living child being born. However, to find the attack intractable, the general system failing, a threatening headache, with evidence of the child perishing, urine scanty, highly colored, albuminuric, it is useless to allow pregnancy to continue, and I have observed that it is not only detrimental to the future health of the mother, but invariably the child is born dead or dies within a few hours.

Attacks marking the onset of labor should be watched long enough to observe its

progress, if very rapid, indeed, use chloroform to control convulsions and leave delivery to the forces of nature. If not rapid then divide the cervix by four incisions, or dilate the os by the use of Barnes' bags, Goodell's or other uterine dilators, or better still by the use of the index fingers and deliver at once, unless the foetus be in transverse position. I do not believe in version, as it is a much slower process of delivery.

Eclampsia occurring subsequent to parturition can best be treated by active purgation, transfusion or normal saline solution, moderate depletion, frequent characterization, hot packs or baths, hypodermics of morphia, bromide and chloral per rectum. I do not care for the use of chloroform except in the first few convulsions, or to control the patient while in the bath or pack.

Cæsarean section is an operation which should only be considered for the preservation of maternal life or to rescue a perishing foetus from a dying or dead mother.

Eclampsia has been, is, and ever will be a fascinating study to the conscientious physician, in which hope and fear are evenly blended; and in each and every case promptitude and patience will equally demand consideration for the saving of human life.

Eclampsia, with Report of Three Cases.*

By J. W. McGehee, M. D., Reidsville, N. C.

Eclampsia is an acute disease, which may appears in pregnant, parturient or puerperal women, and is characterized by clonic and tonic convulsions, during which there is loss of consciousness, followed by more or less prolonged coma.

Aetiology —As yet we do not know the exact cause of eclampsia. Probable causes are heredity, hydramios, ammonium carbonate circulating in the blood, carbamic acid and twins. The most probable cause is an autointoxication, resulting from heaping up of some substance in the system during pregnancy, its presence being indicated by an increase in the toxicity of the blood serum, and a decrease in that of the urine.

Pathology —The pathological findings are more or less constant. In most cases albumen and casts will be found in the urine, necrosis of the renal epithelium,—a condition similar to an acute nephritis.

Liver —The lesions in this organ consist of irregular shaped, reddish or whitish areas, scattered throughout the entire organ, and especially around the smaller portal vessels. They can be seen with the naked eye, and give the liver a mottled appearance. Under the microscope they are recognized as areas of necrosis, in which blood cells are usually present.

Brain —Oedema, hyperaemia, thrombosis and apoplexy being described as the main lesions.

Lungs —In the lungs are found a diffuse lobular pneumonia. Hemorrhagic extravasations in the pulmonary parenchyma and, under the visceral pleura, hemorrhagic infarcts. The blood vessels are frequently found thrombosed.

Symptoms —Eclampsia rarely occurs before the third month, and becomes more frequent the nearer term is approached. Seventy to eighty per cent. of all cases occur in primiparous women. Probably the first and most frequent symptom is pain in the epigastrium. Oedema of face, hands and feet; habitual headache and disturbance of vision. The urine becomes decreased in quantity, while albumen and casts are found in abundance with a marked diminution in the amount of urea. When these symptoms become marked you may expect convulsions, varying in number from one to fifty. The pulse is usually full and bounding; arterial tension high. At times the pulse becomes rapid, weak and compressible; due, I think, to the profound toxemia. Temperature usually from 100 to 102; may be normal or may reach 107 before death. The diagnosis usually offers no difficulty, especially where the patient has been under treatment during the latter months of pregnancy. When a woman is first seen in seizure it becomes necessary to differentiate the condition from uraemia, epilepsy and hysterical convulsions.

Prognosis.—The prognosis is always serious; eclampsia being regarded as one of the most dangerous conditions with which the obstetrician has to deal. The maternal mortality varies from twenty to twenty-five per cent., and that of the foetus from thirty-three to fifty. The prognosis is more serious if the seizure comes on before or during parturition.

Treatment —Prophylactic treatment is most important. The difficulty lies in not being able to see your patient three months before time of labor. It is the duty of the physician to examine the urine at regular intervals, and if albumen is found she should at once be put on treatment. Her bowels should be kept well open with calomel and salines. Of the salines I prefer sodium phosphate given before breakfast in large enough doses to cause one watery stool per day. She should drink freely of some alkaline water, and I usually give in addition ten grains of potassium citrate and two drams of infusion of

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digitalis between meals and at bed time. She should be encouraged to take a walk morning and evening; a hot bath on retiring will be found beneficial.

Diet.—The diet should consist only of milk. If with this treatment, no improvement is noticed and the symptoms become more apparent it is wise and best to induce premature labor, even at expectation of sacrificing the child's life. This may be done by introducing a sterile bougie in the uterus; better still is the dilating bag. In a primiparous woman it may be necessary to dilate artificially. This being accomplished the bag is folded in as small a bundle as possible, and with forceps introduced into the lower uterine segment; 500 c.c. of sterile water is pumped in and a weight of five pounds is attached to it and swung over the foot of the bed. As soon as the cervix is dilated deliver rapidly, as the cervix soon contracts. I do not believe in the deep cervical incisions, as it is frequently extended up into the lower uterine segment during the delivery. There is great danger of shock; the hemorrhage being marked, it is frequently necessary to tampon the uterus and vagina. Infection is more frequent in these cases. The bimanual method is the best, the fingers readily detecting the resistance, and there is less danger of lacerating the cervix.

Convulsions.—Convulsions are controlled by the hypodermic injections of from one-fourth to one-half grain of morphine, chloral and potassium bromide, by the bowels in a sufficient dose to get a sedative effect.

Venesection—I am tempted to say we should bleed whether pulse is slow or high, strong or weak. If the pulse is slow the arterial tension is high, and by bleeding we diminish the tension and withdraw some of the poison. If the pulse is high and weak it is due to a toxemia, and the poison should be withdrawn. Frequently we find the pulse drop from 150 to 70 or 80, showing that the toxemia was the cause. It is wise in these cases to give a salt infusion, same quantity being given as blood withdrawn. In this way we dilute the poison and keep the quantity of blood the same. If we have not access to a hospital and not in a position to give a salt infusion then I resort to Norwood's tincture of veratrum viride minims six hypodermically every hour until convulsions are controlled. If the pulse is high, weak and compressible and tension low, morphine should be given instead of veratrum. After delivery we should continue the milk diet and a hot bath given once a day. She should drink freely of alkaline waters, and in addition I usually give potassium citrate grains ten and drams two of infusion of digitalis in a glass of water between meals and at bed time; the bowels should be kept well open with salines. This treatment should be continued until all symptoms disappear.

Case A.—Primipara, age eighteen, full term, white. Had no physician with her at time of labor; an hour after child was born had a convulsion; in two hours another. I was called and found the patient in a semi-conscious condition; face, hands and limbs swollen, and a pasty, clammy skin; pulse 90, temperature 100.

Treatment.—Calomel grains 20, magnesium sulphate two ounces by the mouth; tincture of veratrum viride minims six, pilocarpine grain one-fifth hypodermically, chloral grains thirty, potassium bromide drams two, water two ounces by the bowels. She was surrounded by hot bottles, and wrapped in a sheet saturated with hot water, and then wrapped in a blanket. In two hours she had another convulsion. I repeated the pilocarpine and veratrum; in six hours two more convulsions, and I repeated the pilocarpine and also gave her one-sixtieth of a grain of digitalis hypodermically, and chloral grains 20, potassium bromide drams one in two ounces of water by the bowels. I also gave her another ounce of magnesium sulphate by the mouth, and within the next six hours she had ten or twelve watery stools. During the next week she ran a low temperature, pulse 85 to 90. I at once put her on a milk diet; had her to drink freely of lithia water and in addition to take ten grains of potassium citrate and two drams of infusion of digitalis between meals and at bed time. Sodium phosphate was given her each morning before breakfast in sufficient doses to cause one or two watery stools a day. The oedema lessened, the urine and urea increased in quantity and the albumen and casts diminished. At the end of three weeks no albumen was found and mother and child continued to make an uneventful recovery.

Case B.—Primipara, age twenty-four, white, pregnant 8½ months. Patient had had seven convulsions when I first saw her; her face, body, limbs and vulva were very much swollen; tongue lacerated and torn; temperature 101, pulse 100, and in a semi-conscious condition. On examination I found L. O. A. presentation, internal os dilated, external os closed. I at once anaesthetized the patient and then called in her husband to continue the anaesthetic under my direction, as I was six miles in the country and unable to call in another physician. After scrubbing my hands and patient well I dilated cervix bimanually, applied forceps and rapidly extracted the child. The whole time consumed two hours. I had some trouble in resuscitating child, due, I think, to the toxemia of the mother

and to the chloroform. The child and mother made an uneventful recovery.

Case C.—Primipara, age twenty, white, pregnant 7½ months. Patient had had five convulsions when I first saw her. Face, body, limbs and vulva markedly swollen; pulse 110; temperature 102; semi-conscious. On examination I found L. O. A. presentation, internal os dilated, external os closed. I at once chloroformed patient and had her mother to continue anaesthetic under my directions, as I was again in the country. I scrubbed my hands and patient well, dilated cervix bimanually, ruptured membranes and did an internal podalic version followed by rapid extraction of foetus. The child lived about two hours; the mother made a slow recovery under above treatment.

I had seen none of these patients before they went into labor, and I am confident that nearly every case of eclampsia could be prevented if we could see our patients three months before time of confinement and give them proper treatment.

Clinical Report on Pseudo-Leukemia.*

By Dr. W. B. Crawford, Goldsboro, R. F. D.

Pseudo-leukemia, or Hodgkins' disease, has for its peculiar and characteristic features two prominent symptoms, besides those resulting from the disease itself, or those produced upon the various organs by interference with their functions, namely, enlargement of the lymphatic glands and progressive anaemia. In the case that came under my observation the glandular enlargement was preceded several months by anaemia, rendering an early diagnosis impossible, and puzzling me considerably to account for the increasing signs of cachexia, and only by a careful study of the case were my suspicions aroused as to the true nature of the trouble and I was enabled to detect the first evidence of excessive growth of superficial glands, this being the enlarged condition of the tonsils and follicles at the base of the tongue, a short time prior to the prominence of the cervical glands in the posterior triangle.

So far as the influences which produce the disease are concerned, very little is known, and I do not propose to tax your endurance by endeavoring to turn on the calcium light in regard to its etiology or treatment, or expatiate upon the management of the trouble, having seen only two cases in 20 years practice, and this the only one which ever came under my personal observation. 'Tis said "a disease known is half cured." But the author of that aphorism evidently did not have this disease in mind or he would have said "a disease known is half dead." It has been found that there is a diminution of red corpuscles in the blood in these cases, and in the majority of the cases no excess of the white. There is no evidence suggestive enough to justify the theory of transmission by heredity. Age has no influence whatever over the condition. Like death, it not only has all seasons for its own, but all ages also, though it is more frequent in early, and late adult life, and fortunately is of rare occurrence, this being the only case of the kind I ever treated in a practice of 20 years. The advanced age of the patient, the busy, active life he led, no hereditary taint, a living example of the simple life in all its sublime simplicity, and long lived ancestors, made it very interesting to me, and though the age of the patient would have influenced the prognosis in a trouble of less serious nature, and realizing that there was no hope for recovery, and very little for even temporary improvement, my efforts were somewhat encouraged by the periodical amelioration of symptoms.

In January, 1905, I was called to see Mr. Richard H—, age 78, a quiet and industrious farmer, who worked his little farm just as he had done for half a century, and as his father had also done before him, surrounded by children and grand-children, happy and contented, with plenty and to spare. As his family physician for the last eleven years I regarded him as the best preserved man and the most active for his age I had ever known.

I found the following condition: Marked debility, impaired digestion, but no irritability of the stomach, slight cardiac palpitation, little swelling of the extremities, and a decidedly yellow complexion, tongue furred, and bowels irregular. These symptoms having been preceded by a few slight chills led me to naturally infer that I had a case of anaemia, consequent upon malarial influence, and probably exaggerated by the patient advancing in age. But the latter thought was dispelled when I learned that his father died at the advanced age at 97, and his mother within a few months of 103, both active and healthy until death, which came suddenly, and the entire family connection of correspondingly long life, others having passed the century mile post.

I put him upon iron, quinine and arsenic, and in a few weeks he was apparently restored, and to all external appearances had regained his former strength, and returned to the busy duties of his little farm, after having taken treatment for about one month.

I did not see him again only in passing

*Read before the North Carolina State Medical Society at Charlotte, N. C.

from early spring until the latter part of the summer, when he again stopped me, saying he had a bad throat and could hardly swallow. The former symptoms were not so marked, but he was very much emaciated, though not so apparent in the face, his skin was a dull yellowish hue and hung loosely over the body, the mucous membrane of the mouth and gums were injected, the follicles on the posterior part of the tongue were unduly prominent, and the tonsils enlarged sufficiently to cause more or less difficulty in deglutition. I again put him on tonics with local spray for the throat with the result that he was soon better. His recuperating powers being so acute that the emaciation gave way to a decided gain in flesh, and the trouble seemed to have entirely disappeared.

In the latter week of October he stopped me again and said he was "puny," and for several weeks had had "risins" all over the back of his neck. The cervical glands in the posterior triangle were enlarged, irregular in size, firm and smooth, and slightly tender. Those of the axilla were somewhat enlarged, but not sufficiently to be detected by the patient. There was slight febrile disturbance, paroxysmal in character, with intermission, or entire cessation for several days, which caused him to think he was again having chills. This condition, coupled with the long continued anaemia and a careful study of the case, brought out the diagnosis and gave little hope for treatment. However, by increasing the arsenic, and by the addition of potas-iodid, there was slight improvement and the treatment was continued at intervals, with no apparent increase in the symptoms and with little disturbance to the duties of the patient for nearly four months.

In March, 1906, the cervical glands were no larger than when I first saw them, but those in the axilla, or I might say gland, were of enormous size, the smaller enlargements having united and formed one large, solid, firm mass. Those of the inguinal region were in a similar condition, and causing pain and discomfort.

The following two months there was a gradual increase in the severity of the symptoms, with corresponding decrease in the patients' physical powers, though he was not confined to his bed all the time. The emaciation progressed, there was complete anorexia, distressing dyspnoea, and obstinate constipation, the skin assumed a greenish hue, severe pains except when under the influence of opiates over the entire thoracic and abdominal cavity, those of the latter similar to the pains of intestinal colic, temperature variable, never presenting an elevation of more than one or two degrees, death resulting from exhaustion after the patient had been confined to bed for two weeks, within a few months of his 80th anniversary.

The interesting features of this case consisted in the advanced age of the patient, his unusual vigor and remarkable activity and strong constitution, the long continued and progressive anaemia, prior to any evidence of glandular enlargement, this being rarely noted. The anaemia generally accompanies the glandular enlargement or is a consequence of the diseased glands.

The affection is defined as characterized by enlargement of the lymphatic glands and by progressive anaemia. This being so the question naturally arises as to whether in this case the diseased glands was not the result of the prolonged anaemia, and not the primary cause. I am inclined to this opinion from the length of the time which elapsed during the anaemic condition, before any evidence of the lymphatics being involved, and the affection being regarded primarily constitutional, with local growths the result of that condition, confirming the belief that in the trouble we have one closely allied to tuberculosis.

Some of the Evil Results of Mouth Breathing.*

By R. J. Teague, Durham, N. C.

Mouth breathing is one of the most important subjects claiming the attention of the medical world today. One writer has recently said that one of the most interesting problems in medicine today is the prevention of the long list of ills and pathological conditions incident to mouth breathing in the young.

To thoroughly understand the evil results attendant upon mouth breathing we should not lose sight of the many causes producing it. The first and most important is enlarged adenoids; second, hypertrophic rhinitis; third, enlarged tonsils; fourth, bony growths of and deviations of the septum and polyps are causative factors in many cases. In the rush for the more formidable abdominal and other major operations the above named conditions are often lost sight of, or, if recognized, are not fully appreciated. Little importance is attached to them, and the unfortunate subject is left to himself and the protection which it is the duty of the physician to give is denied him.

Enlarged adenoids by pressing on the eustachian tubes may cause a long train of symptoms from ordinary catarrh of the tube to the most formidable cases of otitis media, purulent and septic meningitis.

*Read before the North Carolina Medical Society at Charlotte, N. C.

One of the by no means uncommon complications is mastoiditis. Many patients are made partially deaf for life by repeated attacks of eustachian catarrh, which was looked upon as insignificant. Though the tubes and ears seemingly return to their normal conditions, yet changes are started in the mucous membrane lining the tube, middle and internal ears which interferes with the vibrations of the ossicles and functions of the tubes and ears in general.

This condition increases with each subsequent attack, and as a consequence we find after a limited time a retracted membrana tympani, a shortened and thickened stapedius muscle, foot plate of the stapes more or less firmly fixed in the oval window, subjective noises are present in the ears—to a distressing degree in many cases. Hardness of hearing is apt to be present, is progressive in most cases, and destroys the patient's happiness, if not usefulness.

A small amount of hypertrophied tissue in the region of Rosenmuller's fossa may by its constant irritation and congestion lead to permanent deafness. This condition is often present after incomplete removal of adenoids when the central part has been removed or button-holed, as it were, and the lateral parts left. Enlarged tonsils are very often the predisposing factor in producing the train of symptoms above enumerated. Also, to a lesser degree, the other causes mentioned, especially nasal stenosis, are causative factors.

Sinusitis is another complication often present in the mouth breather; one or several of the accessory sinuses may be affected. These sinus affections may be periodical or they may be constant. The periodical attacks come with each cold in the head which it aggravates, and the return to normal is longer and longer deferred, until it becomes constant and chronic and the catarrhal condition is changed to an empyaemia. These patients complain of taking cold easily, and speak of it as a constant cold in the head.

One of the first changes wrought by interference with nasal or normal respiration is a general congestion of the mucous lining, the upper respiratory tract, which is continuous with the mucous linings of the accessory sinuses, middle and internal ears. By blocking up the normal channels of exit the normal secretion is retained, changed, and decomposed, and adds to the irritation already established. The air becoming rarified is partially absorbed and a partial vacuum is formed causing congestion. This congestion finally leads to hypertrophy of the tissues involved. This newly formed hypertrophied tissue is finally absorbed and leaves the organs involved in a permanently crippled condition, robbed of their normal linings or mucous membranes.

By far the most important consideration is the effect upon the general health and physical development of children. The air improperly warmed, moistened and filtered entering the lungs is irritating and causes a thickening of the tissues of the alveoli and bronchi. Dry catarrh of the throat and chronic post nasal catarrh are often present to add to the discomfort of the sufferer. The result is a poorly developed chest and constitution.

Owing to the thickened mucous membrane, the proper exchange of gases in the lungs is interferred with, the waste products are not given off or exchanged for oxygen as they should be, but circulate freely in the blood, thereby robbing the tissues of their normal food. The crippled condition of the mucous membrane, unable to repel attacks of germs, offers a good field for their lodging and development. Consequently we find such diseases as scarlet fever and diphtheria are more fatal in the mouth breather. Pneumonia, grippe and other grave diseases more often terminate fatally in this class of patients.

In nursing and very young children adenoid vegetations are often present and not suspected. The respiration is noisy, there is slight nasal discharge, restlessness, disturbed sleep, dyspnoea, laryngeal spasms, and in some cases convulsions. The nutrition is diminished and often the child succumbs to a progressive inanition, the real cause never being suspected. If, however, the proper treatment is followed the difficulty of respiration ceases, there is marked improvement in the nutrition, sleep becomes normal and quiet, or, in other words, the transformation is complete.

Improvements in Elastic Capsules.

Elastic filled capsules offer the only means of exhibiting nauseous oils and some fluid mixtures palatably. Thus they have become practically indispensable in this latter day of medicine where these disagreeable remedies must be given in large and repeated doses. Eli Lilly & Company have recognized the importance of elastic capsules and for years have been conducting studies and experiments toward the improvement of these devices. As a result, they are offering to the profession machine-made capsules which are accurate in dosage, wholly free from air and of such permanence that they will keep indefinitely in any climate with ordinary care. In addition to these essential qualities they present such a handsome appearence that they carry no suggestion of their naseous contents.

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LIFE INSURANCE.

Owing to the recent revelations in New York, much attention has been drawn to Life Insurance in the last few months, and it is evident that if the companies can pay their agents and employees such enormous salaries, and yet make very large profits, that the provident man who insures is paying too much for his policy. That life insurance is a most expensive way of saving money nobody denies, and it is made very much more so by the various so-called profit-sharing and preferential forms pushed by the companies, where the policy-holder imagines he is saving money when in reality he is paying more than if he took a "straight life" policy. It is difficult to obtain a "straight life" policy at the advertised rates. After the medical examination the agent brings a policy with a lien to it, which increases the premium or reduces the benefit very materially. In fact, unless the applicant be very young and abnormally healthy, I doubt if a straight policy at the advertised rates can be obtained; the medical examination is so framed that normality would almost be abnormal, and the questions asked eliminate almost everybody from being an ideal risk. The healthy man has comparatively little need for insurance, his life according to statistics being good for the allotted span of human existence. The total premium paid ought never to exceed the amount of benefit, the companies receiving sufficient remuneration for the risk in the interest on the payments received. By eliminating the delicate or sick they reduce their risk to a minimum, at the same time charging the healthy policy-holder as if his was a risky policy. The delicate or the sick man, the one to whom a policy is of real value, is either refused or charged such an exhorbitant premium that it is prohibitive. The solution of the problem lies in insurance, by the State, of every child born. By means of a definite tax the people would be able to increase the amount of insurance by simply applying at the post office for a form, and paying the extra tax necessary; the amounts of the policy being limited. The larger the amount of the policy, the higher the premium. By a system on these lines, the rich, or those who desired to leave much insurance, would help to pay for those who had no such ambitions, and thus keep the premiums at a minimum. By this means all agents fees would be abolished, the expensive buildings, clerical staff, and medical examination fees would be minimized, and life insurance would be an economic, instead of an extravagant, form of providing for the family.

URIC ACID SOLVENTS.

The almost innumerable uric acid solvents upon the market contain two ingredients as a basis, viz., alkali and water. Theoretically alkali would be the ideal solvent; *in vitro* uric acid is easily dissolved by the alkalies, but *in vivo* the problem of bringing the alkalies in contact with the uric acid has not been solved. Practically it is almost impossible to increase the alkalinity of the blood except temporarily, the kidneys eliminating any excess of alkali almost immediately. Any uric acid free in the blood stream might be dissolved and any accumulated in the tubules, but only to an infinitesimal degree and only after the administration of very large doses. The lithium preparations upon the market owe their efficacy, if any, to the water and not to the lithium. They contain only a few grains of lithium carbonate to the litre, so that if all the lithium taken were to combine with uric acid, the amount would only be a grain or so per litre ingested. Most of the so-called lithia waters contain large amounts of other alkalies; further lithium carbonate is immediately converted in the stomach into lithium chloride, a salt which will not dissolve uric acid concretions *in vivo*,—and any benefit that may be derived from the use of these waters, and clinically we know there is some benefit,—is due to the alkali and water and not to the lithia. Gout and the uric acid diatheses are best treated by reducing the proteid of the diet to a minimum and by stimulating the liver with mercury and sodium glycocholate mass, in from 3 to 5 grain doses, assisted by large quantities of water containing the inorganic salts of the blood in their normal proportions as in the anti-sclerosis tablets on the market. If the diet and medicine be kept up over long periods the diatheses is held in abeyance and the gouty nodules will not increase, but neither will they decrease.

THE PHYSIOLOGIC EFFECT OF SEA BATHING.

The very exhilarating effect of a week or two at the seashore, combined with sea bathing upon the majority of people, can hardly result from the rest from business or change of scene, though these are factors of great importance. The increase of appetite and improved sleep are the first effects produced by the change. This is combined with buoyancy of spirits and increased energy which must be the result of definite therapeutic effects of the environment. At the sea level

the air is heavier, consequently there is a slight increase of work thrown upon the muscles of respiration; it also contains a greater percentage of moisture with perhaps more oxygen, perhaps also ozone, and very minute quantities of sodium chloride and iodide. Considering that in the 24 hours we inhale 100,000 cubic feet of air, the amount of water and salts taken in this manner will no doubt have the effect of loosening the mucous exudate of the lungs, and thereby increasing the area for the interchange of gases, causing increased oxidation and elimination of C O_2, the latter effect being of great therapeutic value. The effect of the surf bathing is much greater. The sea water produces a dilatation of the peripheral vessels as in the Shott baths, thereby decreasing the mean arterial blood pressure, relieving the congestion of the various organs and increasing the supply of arterial blood. The action of the waves striking upon the body increases this effect in a very marked degree. Increased elimination of urine is also produced, the urine for the first day or two is increased in quantity, of a high specific gravity, dark in color, containing urobilin and ammonia in excess. In fact, with patients who are suffering from a general plethoric condition, a hypercritical elimination takes place, in one case observed amounting to 48.0 grmms of urea in the first 24 hours. This elimination removes the accumulated waste products of metabolism in a physiologic manner, giving better results than can be obtained by the use of drugs. During the bath the skin is not only thoroughly cleansed, but is also stimulated to excretion. During a bath a considerable quantity of sea water is swallowed, which by dissolving the mucous in the stomach acts as a lavage, stimulating the appetite by increasing the secretions. Much sea water is taken up through the nose, cleaning the nasal and pharyngeal passages, washing away the food which may have lodged in the tonsillar crypts and which produces bad breath and unpleasant taste in the mouth. Many of these results might be obtained at home by the use of sea salt in the bath tub, but few patients could be persuaded to carry out the details without the stimulation of the environment of the seashore, nor would the rest, change of scene and salt air be present to aid in producing the physiologic results obtained by "a week by the sea."

THE NERVOUS SYMPTOMS OF ADENOIDS.

The large number of nerves, supplying the parts which are affected by adenoid growths, gives a basis for explanation of a number of nervous symptoms occurring in this condition, ranging from grand mal to simple fretfulness. Such symptoms are promptly cured by the removal of the growths. Among the principal nerves affected are the efferent branches of Meckel's ganglion, the anterior, middle, posterior and pterygo-palatine nerves, the glosso-pharyngeal branches of the pneumogastric and perivascular plexus of the palatine and pharyngeal nerves, branches of the trigeminus and a few branches from the superior cervical ganglion. Adenoids are an obstacle to perfect respiration, especially nasal. It renders the child susceptible to bronchial affections and prevents the absorption of oxygen and elimination of C O_2, causes definite arrest of development, both mental and physical, with malformation of the skeleton, particularly of the thorax and face, producing the "facies adenoidae" of Curvillier. Reflex nervous troubles of the larynx, trachea and bronchi also occur as well as cerebro-spinal symptoms of a more or less severe type.

The most common symptom associated with adenoids is a cough resembling that of false croup or of whooping cough. The inspiratory "whoop" caused by the sub-inflammatory condition of the naso-pharynx and by the concomitant hypersecretion of mucous is most marked at night; the child may have five or six attacks per night due to the accumulation of mucous in the posterior nasal fossae. This condition is often mistaken for whooping cough, and at times there is a true asthmatical crisis. There are two distinct forms of adenoid asthma; one in which the attack occurs at night only; in the other form the asthmatical attacks are complicated with a bronchitis. The cough is suffocating, the child makes vain efforts at respiration, and it occurs during the day as well as night. This form may occur in the first months of life.

Laryngisimus stridulus in infants is usually due to adenoids obliterating the nasal passages, causing the child to inspire cold air by the mouth, producing dryness of the throat. The child wakes suddenly, gasping and covered with perspiration, suffocation follows caused by relaxation of the palate muscles; the tongue falling back in the mouth owing to the child being in the recumbent position. Duplaix explains the attacks by saying the child inhales cold air which has not been warmed or moistened by passing through the nasal passages, thus first producing a dryness of the throat to which is added naso-pharyngeal catarrh;—the secretions resulting from this condition falling into the larynx, exciting reflexes which produce symptoms which are often very alarming. Some children are perfectly well during the day, without fever or

malaise, but are attacked at a certain hour of the night with a crisis of suffocation and cough which is sometimes fatal. Curvellier claims that the nervous reflex is secondary in the causation of the attacks, the primary factor being the pressure of the growths upon the veins of the naso-pharynx. The resulting congestion of the pituitary membrane of the turbinates, augmenting the nervous irritability of the mucous membrane, determines the production of the nervous symptoms which, therefore, emanate primarily from the nose.

Spasmodic rhinitis, frontal headaches, torticollis, spasm of the jaws, glossodynia are also often due to adenoids. Delusions of cancer in the throat, in adults, is a psychic symptom which is on record as having produced a melancholia with lingual paralysis.

Nervous affections of the sense of smell may occur: two conditions are necessary for the sense of smell, the integrity of the epithelium and the presence of odorous particles on its surface. With the presence of adenoids, there exists hypertrophic rhinitis and catarrh. Following the chronic inflammation, the olfactory cells loose their special power; this is often associated with perversions of taste, the gustatory sensations perceived and transmitted by the extremities of the lingual and glosso-pharyngeal nerves are simple,—sweet, bitter, salty, acid. They are made more delicate by the olfactory nerves receiving sensations entering the nasal fossae from odorous particles in the buccal pharynx. Adenoids block the entrance to the nose, causing anosmia. Tactile insensibility of the nasal mucous membrane is often associated with anosmia.

There is an intimate relation between the nasopharynx and the ear. According to Turnbull 25 per cent. of all cases of adenoids have ear symptoms, sometimes only simple tinnitis aurium, sometimes deafness more or less complete, and, when bilateral, deaf-mutism may result. Generally these symptoms are remittant, the child recovering its hearing and the tinnitis disappearing. Normally at each movement of deglutition the meatus of the eustachian tubes open to admit air to keep the pressure equal on both sides of the tympanun. If this equilibrium is upset, owing to the eustachian tubes being closed by the adenoids, retraction of the drum takes place.

Owing to the intimate connections which exist between the nose, the posterior nasal cavities and the orbits, and because of the vascular and nervous reticuli which unite the two cavities, adenoids produce nervous affections of the eyes. Menocho and Chassaignac have noted conjunctivitis, blepharitis and keratitis, the result of the lymphatism. Muller has described clinically a blepharospasm producing contraction of the pupils by involuntary contraction of the orbicular muscle,—a reflex phenomenon originating from the trigeminus. Leomisch has noted this condition from a frontal traumatism, De Graefe from a lesion of the globe, Buzzard in diseases of the ear and dental caries. Accommodative asthenopia occasionally occurs, the patients complaining of eye fatigue, on trying to read the letters and lines are blurred: eye strains of this nature may produce various symptoms more or less severe. Sneffer and Gage have observed cases of follicular conjunctivitis which only yielded to treatment after removal of the adenoids. Hoffman has noted diminution of accommodative amplitude; Zeissi running of the eyes, blepharospasm, contraction of the visual field, the result of tonsillitis and adenoids. Ciliary congestion is a frequent symptom, in fact all the vascular troubles due to reflex irritation from the trigeminus. The reflex influences from the nose and posterior nasal cavities on the eye are well known, as shown by the running at the eyes produced by coryza, by certain odors, the inhalation of irritant gases, etc.

The most common cerebral symptom is the headache due, in part, to the congestion of the pituitary membrane, and in part to inflammation of the frontal sinus. The headache sometimes has a remarkable predilection for the infraorbital regions. Rarely adenoids may be the cause of epileptoid convulsions. Boulay and Thompson record cases analagous to the convulsions produced by foreign bodies in the ear and certain lesions of the naso-pharynx. Chaumier, Delvan and Regnier have found certain cases of chorea due to adenoids in the naso-pharynx. Insomnia, night-mares, night terrors and hallucinations have also been observed, in the latter cases the child seeing cats or dogs, etc., on his bed. The child may be unconscious during these attacks, calling loudly for his mother, but at the same time he may have no recollection of the happenings during the 10 or 15 minutes of the attack. Night terrors are usually due to indigestion and the resultant toxaemia. Difficulties of phonation and audition, often accompanied by persistent headache, render the children incapable of much intellectual work, the memory is bad, audition is imperfect, the power of comprehension deficient, speech is retarded. The pronunciation of the nasal sounds is most affected and may persist after operation, thus showing that there is a nervous element as well as the physical obstruction in the causation. Occasionally children find a real difficulty in finding words to express themselves, especially before strangers, each time they

try to open their mouth to speak the muscles of the face are distorted; in these cases there is a deviation of the tongue and uvula which will recover on removal of the vegetations. Stammering is sometimes due to adenoids; usually it can be overcome by teaching the child to talk in lower key. Nocturnal incontinence of urine may cease after removal of adenoids; the incontinence in these cases is perhaps due to excess of C O_2 in the blood from interference with respiration by the growths. Certain facial eczemas are due to reflex nervous irritation similar to the eruptions of teething.

Pathogenesis of the nervous symptoms.—Some authors, notably Curvillier, consider that the nervous symptoms are due to the irritable condition of the nasal and naso-pharyngeal membrane. Renault, recalling the number of reflex disturbances, such as asthma, convulsions, etc., the result of nasal malformations and abnormal conditions of the pituitary mucous membrane, considers that the pressure of the hypertrophied pharyngeal tonsil on the veins of the naso-pharynx and of the pituitary membrane causes a passive congestion. This produces an exaggerated sensibility of the mucous membranes of the turbinates, and induces a respiratory nervous reflex. Raudin considers that the symptoms are produced by a pseudo-hypertrophic rhinitis, most marked on the inferior turbinates. He holds to the view that it is caused by the passive congestion of the tissue due to the circulatory troubles engendered by the presence of the adenoids.

Nervous Symptoms in Adults.—Adenoids usually disappear at puberty, but sometimes persist into adult life and even to old age. They produce not only many of the symptoms mentioned above, as insomnia, night-mare, etc., but also a neurasthenic condition may supervene amounting to a mild mania. They are often the cause of cough, laryngismus stridulus, headache, convulsions, nasal, aural and optical symptoms which are promptly relieved on their removal.

Adenoids are also points of infection, Huchard and Gallois having ascribed cases of peri- and endocarditis to infection entering by way of adenoid growths. Their liability to inflammation and infection cause them to give off toxic exudates which are swallowed; they permanently affect respiration and the proper absorption of oxygen. Inevitably there is imperfect oxidation and retention of C O_2 with the result of arresting both physical and mental development.

Adenoids must be considered as distinctly detrimental to the well being of the child, and although there may be no symptoms distinctly traceable to their presence, they should, in all cases, be removed as soon as possible and whenever they recur.

THE CAUSATION OF BUBONIC PLAGUE.

One of the oldest epidemic-pandemic diseases about which we have any authentic account is Bubonic Plague. The medical world scarcely realizes that today there is prevailing one of the three great pandemics which have swept over the earth; nor is it known to the majority that the distribution of the disease is world-wide. Though slow in its advance, this pestilence is slowly but surely marching westward. During the past 10 years India has suffered far more than any other country. Plague ravages, among a people who normally dwell amid filth and squalor and among whom sanitary conditions are at the very worst, have assumed fearful proportions. One reads, almost with a shudder of horror, accounts of its awful violence.

As far back as the days of Samuel, there is Biblical evidence that this same plague smote the Philistines after the capture of the Ark at Ebenezer. "*For one plague was on you and your Lords. Wherefore ye shall make imagines of your emerods and images of the mice that mar your land.*"—evidence of such symptoms as swellings and the presence of large numbers of rodents. As we shall see later, rats are known to play a most important part in the causation. Bubonic Plague is called a disease of "man and rats."

Again the disease become world-wide in its destruction in the 11th century, culminating during the 17th in the terrible "Black Death" which left Europe only a fraction of her population.

Half a century ago plague was discovered in a province of China. Since, it has been gradually spreading and the world takes little notice of the thousands, aye! tens of thousands, who are annually dying, or of those who are fighting the battle, in the far East.

From ancient times it has been observed that there is a remarkable connection between this disease in rats and in human beings. Rats die in enormous numbers, and, always in epidemics, rat mortality precedes an outbreak of the disease in man. Work done by medical men in India during the past few years has gone far toward clearing up the problem of the etiology of plague, its mode of transmission, and factors influencing its spread.

The rat is the most important single factor in the spread of plague. Other influences such as season, soil, unsanitary surroundings, dust, air and food play merely a subsidiary role. Partly are they effective, but only in so far as they cause an increase or

decrease in the numbers of rats. That the disease is communicable from man to man is admitted; but an epidemic never arises from this mode of transmission. In some instances the *pneumonic* form of plague may be transmitted by inhalation of particles cast off by another victim suffering with the same form of the disease. Yet such a group of cases is usually localized—often confined to a single house.

Wherever man dwells, he finds a close companion in the rat. Of the several varieties, the one almost universally found to inhabit the dwellings of men is the common black rat. In India it finds everything admirably adapted to its rapid growth and multiplication—and rats exist in enormous numbers, despite the plague ravages. Sanitation and habits of life are several hundred years behind that of Europe and America. Houses are poorly built and, in the great majority of cases, are mere rat dens.

The outbreak of an epidemic generally presupposes the importation of infection from some other locality, remote or near, either by an individual who has become infected elsewhere or by infected articles of clothing, merchandise, grain, etc. The rat, which all know to be a notorious stow-a-way on ships, boats, in caravans, &c., may carry the poison over long distances. When he lands, other rats contract the disease, as we shall see below. Suppose there is a single case in a town. Rats easily become infected from excreta, or articles soiled by a patient. The dirt floors harbor the germs and to these the rodent, which requires but a very small dose of the poison, finds ready access. The rat dies, the body may be eaten by other rats, or else it decays and contaminates rat habitations. Others sicken and die. Another, and perhaps most important, method of spread from rat to rat is through the agency of fleas. Rodents harbor numbers of fleas in the fur and, as soon as the animal dies, the fleas leave the carcass for a living subject. It is a known fact that fleas from an infected rat have been found to carry plague bacilli in their bodies and when another rat is bitten by them it is attacked, soon sickens and dies. And so it spreads, rats dying in enormous numbers and leaving the fleas in the habitations to attack other live warm-blooded animals. So long as there are rats sufficient to harbor the insects, few human beings are bitten, but when the epizootic breaks out among the rats they begin to leave the locality, leaving only man to the mercies of the poison bearing fleas. The insects move about chiefly at night and, seeking food, attack men, thus transmitting the plague bacilli to man through the minute wound it makes in the skin. Generally rat mortality reaches very large numbers before the human is attacked. It is always a signal to the inhabitants to flee when rats begin to die. Experimentally this observation has been proved: that the infection is carried by fleas from one animal to another. It is also observed that the prevalence of plague varies with the abundance of fleas. A great diminution in their numbers, which takes place with the onset of the hot season, is coincident with a subsidence of the disease.

Remarkable, also, is the fact that rats are stricken and die the year round, while during the hot months human mortality is practically *nil*. The agent of transmission from beast to human has ceased to play its part. Again, in localities where rats do not infest houses or where they have been exterminated plague is not seen. Hospitals, barracks, and houses of Europeans which are so built as to furnish no harboring places for rats are free from the pestilence.

Truly it is fascinating—this rat-flea theory. Without doubt it does furnish the missing link in the chain of infection from rat to rat and from rat to man, and constitutes the chief mode of transmission. It is to be realized, however, that other methods of infection are acknowledged as possible; yet, in the light of the investigations carried out and the statistics adduced the method to which most attention has been paid in this article is of far the greatest importance.

ENTRANCE REQUIREMENTS FOR MATRICULATING IN MEDICAL COLLEGES.

An experience of several years as a member of the North Carolina State Medical Examining Board, during which time most careful study was made of the preliminary qualifications of the some hundreds of physicians appearing for examination, made most painfully manifest the fact that a considerable percentage of our young men who enter the profession of medicine are ill fitted to begin the study when first matriculating at the medical school. A critical study of the North Carolina Board's records shows, what doubtless that of most other States would also demonstrate, that in the immense majority of instances the rejected candidates for State license are men who are primarily the recipients of a most limited elementary education. Almost invariably they are men who read poorly, spell badly, punctuate miserably, their sentence construction is imperfect—in short, the examination paper shows many things besides an inadequate knowledge of the medical topics discoursed upon. This fact has been brought again and again to the attention of the profession in this and other States through the Annual Reports of the Boards of Medical Examiners and otherwise. In North Carolina it was

made the subject of special discussion in the President's Annual Address by Dr. E. C. Register at the annual meeting in Charlotte in May, 1906.

While some of the medical colleges have voluntarily taken up this important matter of entrance requirements, and a reading of the catalogues of all would indicate that a proper preliminary education is demanded, yet the practical fact remains that men are matriculated in the vast majority of the medical schools of the country whose education illy fits them for entering upon the study of a learned profession. That some of these men by dint of energy, intense application, and down-right hard work, do make professional successes, does not for a moment mitigate the error of continuing to matriculate illiterate men, and later after their four years of study in medical schools send them fourth with a medical degree to be slaughtered by a discriminating and intelligent State Board which has no interest to study save that of what is best for the whole people of the State.

How best to remedy this condition, which the professors in the medical schools themselves admit exists, is a problem which should be met and faced in the immediate future. That State Examining Boards are here to stay, that they have done a most beneficent work in the past for the people and the profession, which entitles them to a permanent place in the organization of our sociologic system, is, I believe, admitted by most doctors and laymen. But, admitting the good work done in the past and being done at present by State Boards, is it not time the medical colleges were learning their lesson in the premises? Should not the faculties of every college in the land whose recent graduates show even five per cent. of rejections on State examinations begin to ask why, and to take measures calculated to lessen the rejections? Some of our colleges now maintain a strict supervision over their matriculants, looking carefully to their preliminary education. And the results of their schools before examining Boards show the influence of proper preliminary educational qualifications in students of medicine.

All of the schools do not, and it is probably lamentably true that all of them will not, take a sufficiently firm stand on this important matter until forced by professional sentiment or statutory enactment to do so. Public professional sentiment operates slowly on a proposition removed from contact with the individual doctor, and it is most likely true that legislation of the right kind would greatly assist along this line of reform. We commend a careful consideration of this whole matter to our Committee on Legislation and bespeak their hearty co-operation with the officers of the State Medical Society in an effort to move forward in this matter and secure at the hands of the forthcoming session of the State Legislature a statute prescribing an entrance examination, or a literary or academic degree, as a pre-requisite to admission as a student of medicine at any medical college chartered by the State. We do not mean to bear hardly upon the excellent and rapidly growing colleges of medicine which now grace our State, nor do we desire to curtail in any measure their attendance or their great practical usefulness to the people and the peofession of the State, but the time is now as fully ripe for this advance as was the time when the examining Board was created. We urge the county Societies to take action in the premises and let their chosen legislators know the organized profession is behind this move to secure better educated physicians for the people of the State.

"PATENT MEDICINE" LEGISLATION NEEDED IN NORTH CAROLINA.

We have heretofore referred commendingly in these columns to the talented Congressman from the ninth N. C. District, the Hon. E. Y. Webb, and mentioned the debt of gratitude the profession and people of the country at large owe him for his valiant and successful efforts in the face of tremendous opposition last winter in securing the enactment as a section of the Pure Food Law, Mr. Webb's "patent medicine bill," which provides for the correctly labelling of all mixtures containing any poisonous or dangerous drug.

The well arranged provisions of this act go into effect Jan. 1st next, after which date all medicines sold in this way in the District of Columbia, or in the Territories, or from one State to another will be so labelled. But while we are thankful to Congressman Webb and to the National Legislature for this measure in the interest of a higher and better standard of things, we should not forget that this national enactment, like other similar measures, can only apply practically to "interstate commerce," and has absolutely nothing to do with the manufacture and sale of "patent medicines" within the individual State to citizens or residents of that State. This is a condition of things which will now throw the burden of the matter upon the local profession of each State and their separate State legislatures. The enactment of so profound a reform measure by Congress was a step in the right direction, but there yet remains much to be done and it behooves the medical organizations of the separate States to now take up the matter vigorously and induce the legislature to

enact a similar statute in each State. Only by a careful following up of the national enactment can much real advantage ensue.

Suppose, for instance, North Carolina takes no further steps in this matter, the way of procedure for the great "patent medicine" concerns would be perfectly apparent. Ship their wares in bulk into the State and establish a local bottling or packing plant at some point where labels may be placed upon it showing the product to be of North Carolina manufacture, and no matter how much opiate, alcoholic or other "dope" it may contain, not being a matter of "interstate" traffic, the valuable provisions of Mr. Webb's bill can not apply to it, and hence the nefarious preying of unscrupulous "patent medicine kings" upon gullibility and ignorance can continue unmolested.

In this connection it is also well to bear in mind that at the present time there are secret proprietary medicines made and sold in this State containing large and hurtful quantities of dangerous drugs, and State enactment should subject them to the same wholesome restrictions imposed by the Webb bill upon such compounds sold in a State other than the place of manufacture or compounding.

Dr. J. Howell Way, of Waynesville, N. C., has been appointed State Medical Examiner for the Royal Arcanum in North Carolina.

Review of Southern Medical Literature.

The Southern Clinic, August, 1906.

X-Ray Conjunctivitis.—Dr. H. C. Bennett says all are or by this time should be aware of the dangers of too long or frequent exposures causing dermatitis or the wrongly so-called X-Ray burns This effect can never be accurately limited, and has been known to cause necrosis to the extent of requiring amputation of hands and arms and in several instances paralysis, and in the case of Mrs. E. Fleaschman Aschheim the the injury resulted in death last August.

The author relates his personal experience in the use of the X-Ray and points out in a most conclusive manner the injurious effect the X-Ray has on his conjunctiva, the first time his attention was drawn to the X-Ray as a cause of this inflammation was after returning from a trip he had about a dozen new tubes to test in order to mark the comparative degrees of vacuum and penetration the ten days following he had no X-Ray work. Then suddenly a terriffic inflammation of both eyes set in and kept him in agony for nearly a month. Since this he has had occasion to verify his conclusions and has finally decided to give up the work. He says it may be an idiocyrisy for he has also noticed that his skin is specially susceptible to the ray. He hopes that the recital of his disagreeable experience may enlighten others who may be similarly affected and not know the reason or be a warning to others to avoid the chance of such results as far as possible and thus save themselves loss and suffering.

Southern Medicine and Surgery, July, 1906.

Arteriosclerosis, Its Relation to Disease of the Nervous System and to Disorder of Function.—By Dr. Jas. Collins.

The American Practitioner and News, July, 1906.

Use of Adrenalin in Exopthalmic Goitre.—Dr, Barclay refers to a case in a young lady who had had a pyopneumothorax while recovering from this exopthalmic goitre developed and soon became the serious feature of the case. Tachycardia and choking sensations came on with great violence. While treating one of these severe attacks, after trying various remedies he injected 5 minims of the 1-1000 of adrenalin chloride and watched results. They came with great rapidity. The pulse slowed and slowed and slowed till its slowness and intermittance gave him some cause for alarm for this time a struggle for breath ensued but apparently as soon as the maximum effect was reached the suffocation sensation passed off. In fifteen minutes the patient was relieved and comfortable. Taking the hint from this experience she was kept under the adrenalin for a couple of months with subsidence of all symptoms. After six months a slight return took place, the treatment was again started and improvement continues.

Memphis Medical Monthly, July, 1906.

Neurasthenia.—Dr. S. T. Rucker regards it essential in the beginning of treatment of this disease to first gain the confidence of the patient and employ a tactful nurse. Always require the patient to retire early, sleep late, and to sleep or lie in bed two hours after the noon day meal. He also gives liberal draughts of pure water and selects a diet largely composed of milk, eggs, fruit and vegetables. Early in the treatment an extra glass of milk between meals and at bedtime is given. A warm bath at night followed by a glass of hot milk will encourage sleep. A cold sponge followed by a light brisk massage on rising in the morning equalizes the circulation and in-

creases the nervous tone. Constipation is overcome by the usual procedure. It must be remembered that strychnine to a neurasthenic is like a whip to the already jaded energies. It is a powerful stimulant but if given in large doses and persisted in it will exhaust the patient beyond the chance of recovery. A better agent than strychnine is codine phosphate. It has a tonic and soothing effect and acts like a specific in some cases. But it must be remembered that codine belongs to the opium family and it should be used gradually, and never without the konwledge of the patient.

The Texas Medical Journal, July, 1906.

Therapeutics of Static Electricity.—Dr. G. D. Bond says that Electrotherapeutics is a distisctive branch of medicine and no matter how learned we may be in the other branches this one must be mastered for itself. This cannot be done by reading a few text-books on the subject and having the agent who sells the machine to show his customer how to run it. This is on a par with having the agent of a manufacturing chemist to tell us how to prescribe for our patients. If we are to succeed we must have instructions didactic and clinical both in physics and therapeutics. Most cases come for electric treatment have many months or many years of unsuccessful medical and surgical treatment. There are three principal reasons for this. First, the reports of electrocution, legal and accidental causing fear of it second they very naturally ask advice of the family physician, and he usually tells them that there it is very much more expensive than ordinary treatment. When medicine or surgery will accomplish quicker results they should be given the preference but to those cases that are intractible to medicine or unsuitable for surgery or where operation is refused will in many cases respond favorably to static electricity or X-Ray applied as it should be. In its practice we have an art under the control of science that is of some degree of exactness and in writing this the author only hopes that it may create enough interest to encourage others to take up and help along this very important work.

Maryland Medical Journal, July, 1906.

The Present Aspects and Needs of the Milk Supply of Baltimore.—By Dr. C. H. Jones, Assistant Commissioner of Health, Baltimore.

The Louisville Monthly Journal of Medicine and Surgery, July, 1906.

Adenoids.—Dr. P. R. Taylor says the treatment is strictly operative. Give the child a general anesthetic, carry it only to the point to control resistance, slant the body at 65 degrees head down, child on its side, and currette quickly but thoroughly. The bleeding is severe but rarely fatal. Never operate on adenoid tissue which is fibrous and vascular or when inflamed. There is danger of fatal hemorrhage.

The points that the author wishes to impress is first that children are often the subject of pharyngeal adenoids at birth; second that no internal or topical medication will iremove them and that operative procedure s necessary to get the desired relief.

The Alabama Medical Journal, July, 1906.

Sciatica.—Dr. J. L. Morris thus describes the treatment of this condition by mechanical vibratory stimulation. The first consideration is to relax all tight and contracted muscles. This is done by inhibiting their nerve supply by using a long stroke and deep pressure for a period of from thirty seconds to two minutes after the pressure is removed. The next desirable result is the relief of pain, which is easily achieved by applying the vibratrode over the trunk of the nerve of the sciatic notch making deep pressure with a long stroke for a period of from thirty seconds to two minutes as it seems necessary and the pain will cease while on the table lasting in the first treatment usually several hours and later becomes permanent after the pressure has been permanently removed. When there is no contracted muscle or no tipped pelvis it is well to treat methodically all the interspaces the entire length of the spine beginning at the first crevical vertebra and continuing down to the sacral with a longer and heavier stroke over the last lumbar nerve of the sciatic notch and ever following up some of the branches of the great nerves of the thigh and leg; then the patient should be turned on his back and stimulative vibration be given to the affected leg beginning over the femoral artery and the largest branch of the lumbar plexus the anterior crural nerve at the base of scarpa's triangle and following through Henter's canal.

The author then reports cases of sciatica due to different causes in which he has used this method of treatment with most satisfactory results.

Southern Medicine, and Surgery, August. 1906.

The Technique of Abdominal Closures.—Dr. Battle Jerome recommends the following technique; The peritoneum and transversales facia are closed with Pagenstecher

linen. In a median section a wire suture is then put in the aponeurosis as follows : The needle is made to penetrate the skin an inch or two below the lower angle of the wound and brought out at the angle of the opening in the aponeurosis the needle being introduced parallel with the cut edges. A "bite" is then taken in the same way on the opposite side, care being taken that the needle enters at a point exactly opposite the exit on the first side. Going back and forth the edges are turned in and accurately approximated and the wire is brought out through the skin at the upper angle. The wire is now pulled back and forth to see if there are no kinks in it and the skin is closed with a subcuticular of silk worm gut.

Where the McBurney incision for appendicitis has been made two wires are used, one closing the internal oblique and the other the aponeuroses of the external, each being introduced in the way described above. At the end of two weeks the wires are removed.

The Virginia Medical Semi-Monthly, August 24th, 1906.

The Treatment of Placenta Previa by Caesarean Section With Report of Cases. —Dr. A. P. Condon gives the history of two cases of this kind and describes the operation and concludes the article by saying that cases of placenta previa ar every liable to infection, being as is often the case, extremely anemic from previous hemorrhages. There is less likelihood of infection occurring when the case is taken early and a Caesarean section done than when temporizing methods are used and dilation and version is performed.

The operation of Caesarean section is regarded by many as being a most hazardous procedure, while in fact it is not a difficult operation. Before the days of antiseptic surgery Caesarean section, like every major operation, was attended with frightful mortality; but since surgical technic has advanced to its present state mortality has decreased to a low per cent. Zweifel has performed 76 Caesarean sections with one death and Reynolds 23 with no deaths. The records of a number of other operators are equally as good.

The operation of vaginal Caesarean section described and used by Diehvessen should not be done in placenta previa owing to the great danger of hemorrhage from the placental site.

The following conclusions are thus drawn:

1. In placenta previa centralis when the child is alive and viable the procedure indicated is Caesarean section.

2. The life of the unborn babe (when viable) is as much to be thought of as that of the mother.

3. The operation of Caesarean section can be done more quickly than dilation, version and extraction.

4. The danger of a ruptured uterus and uncontrollable hemorrhage can be better overcome by section.

5. An obstetrician should not attempt a version unless he is capable of doing a Caesarean section.

The Medical Recorder, August, 1906.

My Experience With Cocaine as an Anaesthetic. —Dr. T. E. Shumpert believes that the dread of the dangers of chloroform doubtless causes a good many people to decline operations that are advisable but not imperative so that such operations are deferred to times that may be less favorable or may not be done at all. The result is that the subject of some infirmities continue to go about less fit for active life than they might be or exposed to dangers that could be entirely removed. This obstacle which stood in the way of almost every surgical operation is now being rapidly removed by the introduction of cocaine.

Cocaine should be used in preference to chloroform in every case where it is possible to do so. First because the mortality from the chloroform anaesthesia is about 1 in 33,000 while that of cocaine is practically nil. Secondly patients do not suffer anything like the disagreeable after effects from cocaine that they do from chloroform. Thirdly the physiological impression in the anticipation of the operation is much less profound and the patient is often able to render valuable assistance to the operator. For instance in a herniotomy where the sack is obscure by having the patient to cough the sack rapidly protrudes and comes in view. In the fourth place one can perform an ordinary operation under cocaine in the time that is required to get a patient under general anaesthesia.

The field of employment will increase with one's experience and the mastering of the finer points in the technique of infiltrations and interneural injections.

Gaillard's Southern Medicine, August, 1906.

Posterior Displacements of the Uterus With a Description of Mayo's Operation. —Dr. Stuart McGuire describes Mayo's operation as follows. Last summer while in Rochester, Minn. I saw the demonstration of a new operation for retroversion. It combined all the practical advantages of and did away with the real or theoretical

objects to both the Alexander and rentroversion operations. I immediately determined to adopt it and during the past winter I have performed it on twenty-nine patients with most gratifying results.

The operation corrects the displacement by shortening and suturing the round ligaments and thus avoids the formation of abnormal attainments. It accomplishes this through a single median incision which permits the of thorough intra-abdominal examinations. It is not "blind surgery" like Alexander's nor "unnatural surgery" like rentro-suspension. The patient is placed in Trendelenburg's position and a four-inch incision is made above the pubes. The hand is inserted and carried into the upper abdomen to explore the region of the gall bladder. As the hand is withdrawn the coecum is brought into the wound and the appendix examined. The tubes and ovaries are in normal position adhesions being broken up if present. Finally comes the steps to shorten and suture the round ligaments. The abdominal incision is inspected and the cut edges of the anterior fascia of the rectus muscle located. The overlying structures are separated from it the blunt dissection being carried outward until the the aponeurosis of the external oblique muscle is exposed opposite the opening of the internal abdominal ring.

A half-inch incision is made in the aponeurosis immediately over the ring. A pair of curved artery forceps is now taken and the points introduced through the incision in the aponeurosis and through the opening of the internal ring. The sides of the abdominal incision is then raised with a retractor and the ends of the forceps can be seen beneath the peritoneum between the folds of the broad ligament. By elevating the handles of the forceps and carrying them outward and making gentle pressure downward and inward the point is made to pass along the side of the round ligament. When it comes within one and one-half or two inches of the cornua of the uterus it is pushed through the peritoneum and is made to grasp the round ligaments. By withdrawing the forceps the round ligament is doubled on itself and the loop is made to present at the opening in the aponeurosis of the external oblique. It is fastened at this this point by two sutures of silk or linen. The same procedure is repeated on the opposite side. The abdominal incision is then closed with tears of catgut sutures. The operation takes less time to perform than it does to describe it.

The Texas Medical Journal, August, 1906

Criminal Responsibility of the Insane.—Dr. F. E. Daniel after citing various cases and discussing the subject fully in a most scientific and practical manner says: In estimating responsibility it should be borne in mind the warp in the physical, mental and moral make-up of a defective antedates even his interuterine life. We have heard the saying "To reform a drunkard you must begin with his grandfather." The blight is in the germ that fertilizes the ovum which becomes first embryo and then child. Hence we have born into this world everything human from the acephalous idiot to the god-like Robert E. Lee or Gladstone. Thus are the sins of the father visited "upon the children even unto the third and fourth generation" and all successive generations. Such defectives are no more responsible morally, at least, for their character and actions than they are for being here at all. The true philosophy of the situation is that as far as possible such defectives should be prevented. A decent regard for race integrity to say nothing of present protection demands it, and if our marriage laws were properly amended and enforced there would in a short while be fewer Guiteau's, Prendergrast's and Burts' to puzzle and confound our learned jurists.

Louisville Monthly Journal of Medicine and Surgery, August, 1906.

The Chemistry of Milk.—Dr. P. F. Barbour says statistics show that the mortality in bottle fed children is eight times as great as in breast fed children. This seems to illustrate the fact that there is some very radical diffierence between mother's milk and any other kind of milk and any other kind of milk or food. As cow's milk is the chief substitute for mother's milk a comparative study of the chemistry of cow's milk and mother's milk only will be taken up. From a priori reasoning we should conclude that the milk of each animal would develop along the lines of the special needs of the young of that animal so that the needs of the cow would differ from that of other animals because the life of the calf as determined by its growth and environment and the proper development of its natural functions must differ from that of any other animal. And so we find that evolution has developed in mother's milk a mixture of foods in the best proportion for the proper nourishment of a baby, whose fully developed existence is to be as different from that of a calf not only in the mental state but also in the physical. We look upon milk as a combination of the five essential food elements but these ele-

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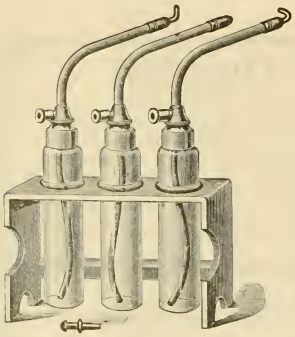

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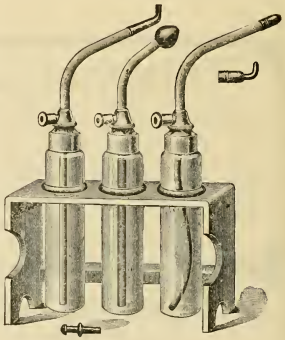

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TABLE OF CONTENTS FOR OCTOBER, 1906.

Original Communications.

Acute Articular Rheumatism, by Dr. E. C. Boyette, Mt. Holly, N. C., ... 174
Broncho-Pneumonia Complicating Measles—Prognosis and Treatment, by Dr. J. G. Busby, Spencer, N. C , ... 193
Cotton-seed Oil in the Treatment of Pulmonary Tuberculosis, by Dr. C. D. Thompson, Lowesville, N. C.,..... 199
Clinical Report on Pseudo-Leukemia, by Dr. W. B. Crawford, Goldsboro, R. F. D., ... 206
Eclampsia, with Report of Three Cases, by J. W. McGehee, M. D, Reidsville, N. C., ... 204
Immediate and Remote Influences of County Medical Organizations, by Dr. J. C. Grady, Kenly, N. C., 171
Malposition of the Kidney, by Guy L. Hunner, M. D., Johns Hopkins University
Modern Methods and Aids in the Study and Teaching of Human Anatomy at a Minimum Cost, by Lewis M. Gaines, A. B., B. S., M. D., Wake Forest, N. C.. 196
Notes on Puerperal Eclampsia, by Raymond Pollock, M. D., Dover, N. C , ... 200
Pneumonia, by Dr. J. B. H. Knight, Williamston, N. C., ... 178
Prognosis of Pulmonary Tuberculosis, by James Sawyer, M. D., Asheville, N. C., ... 185
Some of the Evil Results of Mouth Breathing, by R. J Teague, Durham, N. C., 207
The Relations Existing Between the Upper Air Passages and the Lungs, by R. V. Brawley, M. D., Salisbury, N. C... 169
The Early Diagnosis of Pulmonary Tuberculosis, by Dr. W. M. Jones, High Point, N. C.,..... 180
Vesical Calculus in the Female with Report of a Case, by Dr. Z. Marvin Caveness. Wakefield, N. C.,. 183

Editorial.

Entrance Requirements for Matriculating in Medical Colleges, ... 213
Life Insurance..... 209
"Patent Medicine" Legislation Needed in North Carolina,..... 214
The Physiologic Effect of Sea Bathing, ... 209
The Nervous Symptoms of Adenoids,..... 210
The Causation of Bubonic Plague..... 212
Uric Acid Solvents,..... .. 209

Review of Southern Medical Literature,..... 215

ments are not identical in the different milks and especially as regards the casein chemists have come to to the conclusion that the protied called casein is different for each animal for it responds differently to digestive and chemical tests.

New Orleans Medical and Surgical Journal, August, 1906.

Abortion.—Dr. T. A. Roy under the heading of sequalae of abortion calls attention to a troublesome complication, namely, hemorrhage either from a subinvoluted uterus or a lacerated crevix or an endometritis and gives the history of the following case. In 1900 was called to a woman multipara, who had aborted a few hours before, pregnancy three months; date May 2; the fetus and secundines having been expelled before arrival; patient bleeding profusely. Prescribed ergot and rest. Day following considerable hemorrhage took place. Curetted the uterus, flushed the cavity with normal salt solution (112) packed with gauze and continued ergot. The mode of treatment was varied but in the main continued and repeated every day except the curettage. The hemorrhage at times was scanty and still continued and the patient growing progressively weaker up to May 27.

Having made arrangements to leave my practice for two months the case was transfered to a willing confrere. On Aug. 7 saw the case again. The patient was practically pulseless, white as a sheet, cold and still losing blood—a mere oozing; had never had any fever. The usual, the same mode of treatment as aforesaid was again practiced for four weeks when for unaccountable reasons oozing stopped and she eventually recovered her former health, having been sick 131 days. This woman is not of a hemorrhagic diathesis. This lady evidently suffered because of a subinvoluted uterus.

Aside from subinvolution which in the main is usually the factor present in most cases of hemorrhage of long duratron this subinvolution is very often the result of a lacerated crevix or displacement of the uterus from its normal position.

The treatment of abortion after the expulsion relates entirely to the cause and effect the cause very often being obscured by innumerable false signs and symptoms but in a general way would say that either blunt or sharp curettage as the case may demand hot saline douches packing and correcting abnormalities and supporting measures should in most cases suffice.

The Atlanta Journal Record of Medicine, Augnst, 1906.

The Intestinal Toxemias of Children.—Dr. L. B. Clarke defines the condition as follows. An acute intestinal infection usually accompanied by marked constipation characterized by a tendency to hpper-pyrexia with or wiihout prostration no apparent lesion and due to the absorption of toxines either pre-existing in food or developing after ingestion. The symptoms are irregular and uncertain. Themost marked symptoms presented are more or less continued high temperature and constipation. In some cases the attack is ushered in by vomiting.

The physician is usually called to a child who has fever, temperature any point between 102-105. This temperature may prove more or less continuous or in other instances may gradually fall to 99 about midnight remaining thereabout for six to eight hours and gradually rising during the morning and afternoon until it reaches 105 to later at night and fall again. This will continue from two to three to ten days until influenced by treatment. In other attacks the temperature may reach 103 to 105 in the early morning hours and remain high during the entire day. It may be of either remittent or intermittant type and when it intermits the paroxysm of temperature is in existence longer than in any known disease of that type possibly excepting some cases of pyemia.

Treatment—purgation. Satisfied with the diagnosis clean and recleanse the alimentary canal until the temperature is effected. Calomel, salts, castor oil, and the best of these is calomel—in successive large doses if need be until the desired effect. Heroic dosage may be necessary. Conjointly the colon should be irrigated with warm salt water twice or more daily. In gaseous distension turpentine irragations will assist with turpentine steepes on the abdomen and and abdominal massage. For the temperature lukewarm cool or cold sponging as may be necessary. Other incidental conditions should be treated symptomatically. The diet should be liquid—no milk in any form. Broths, soups, (strained) albumous peptonoid preparations, beef jelly, juices, rare steak, etc.

Virginia Medical Semi Monthly, Avgust, 1906.

Diagnosis and Treatment of Tuberculosis Bone and Joint Lesions From the General Practitioner's Standpoint: The Question of the Responsibility for Deformity.—Dr. T. R. Taylor thus explains how the treatment of these legions may be carried out by a general practitioner. Tuberculous joints should be treated as fractures by thorough fixation both above and below the lesion. In certain fractures muscular spasm and rigidity play such an important part that this may be overcome by traction. So in joint disease traction must be used to overcome muscular rigidity pain and malposition and prevent inter-vertebral or inter-articular pressure causing an extention of the disease continuity or contiguity and pressure. Later fixation alone suffices. In the case of Pott's disease we depend upon extending the spine backwark for if we can throw the weight off from the softened and diseased bodies of the vertebra on to the articular and spinous processes at the point of the disease we lessen the tendency to deformity. In a case of fracture of the spine high up above the transverse axileiary line one would not think of using a plaster jacket which only came to this point but one that included the head and back as well. So in Pott's disease fixation of the head and neck as well as the lower spine must be employed in disease high up. The jury mask which slings the head above the plaster jacket is not sufficint fixation, plaster to include ths head and neck is much better. A common error among general practitioners in the treatment of hip disease if the leg is flexed is in making traction on the leg in plane of the bed. In this position the psoas muscle is a rigid band and if we try to pull the thigh down it increases and does not lessen the pressure between the head and the acetabulum. It is similar in effect to a crow-bar working over a fulcrum on a large rock.

Hence the proper way is to make traction in the line of the deformity with the psoas magnus relaxed until such a time as the muscular rigidity disappears.

The American Practitioner and News, August, 1906.

Thoughts on Uremia.—Dr. C. P. Fox believes that it is now generally conceded by pathologists that urea is the least toxic of any of the materials the kidneys fail to secrete; and that the extractives constitutes 57 per centr of the toxicity of the blood in uremia, hence the term "uremia" may be considered something of a misnomer. Positive of gross kidney lesion is usually recognized in connection with what migh be termed the major accidents of uremia it is not always possible to find such well defined evidence in connection with the minor accidents of uremia. The fact that we are unable to find albumen and that the sp. gr. of the urine is unaltered by no means eliminates the possibility of uremic intoxication in many cases of vomiting dyspoena, asthenopia, insomnia, melancholia, acute indigestion, bilious attacks, vertigo, headache, diarrhea, neuresthenia, auarenia, puritis and certain skin eruptions are uremic in origin and in which no albumen or casts appear in the urine, and no positive evidence of nephritis can be found. With the major accidents as coma convulsions cheyne stokes respiration the secretion of urine will be suppressed and albumen and casts will be present. It seems not an unreasonable conclusion that while the graver forms of uremia could only occur in connection with a definite imperemability of the kidneys and that we frequently have the milder uremic intoxications where no lesions can be dem-

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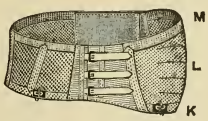

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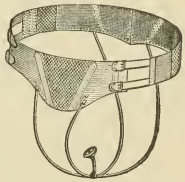

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onstrated.

Maryland Medical Journal, August, 1906.

A Report of the Womens Venereal Department of the John's Hopkins University.—In this report Dr. Flora Pollock says the treatment of gonorrhea depends upon the location as well as the complications. For the discharge silver nitrate in five per cent. solution to the vagina and urethra is very satisfactory. It may or may not be supplimented by home treatmeut as the women are often too poor or too ignorant or both to do it efficaciously at home, yet for the discharge alone it is admirable if applied often enough to control the discharge, e. g. every other day etc.

Unfortunately the commonest complication is also the most difficult to relieve i. e. pelvic inflammation which does not go on to gus formation. And as this complication develops in 20 per cent. of all cases one can readily estimate the amount of suffering thus brought home to the poor.

It means one disabled woman out of every five that visit the dispensary. One cannot even promise relief from pain by operation for the adhesions recur and with them the suffering. Pus cases do better usually from operation but only 4.6 per cent. develop pus

tubes as compared to 17.5 per cent. that have adhesions without actual pus formation. This can be relieved at times by free purgation and counter irritation applied to the vaginal fornices with the slight depletion obtained from the glycerine which is used. Though the relief is often great it is of short duration.

Bartholin's abscesses, suburethal abscess, ischio-rectal abscess all yielded kindly to treatment. The incision must be large, especially in Bartholin's abscess and here the incision of the capsule must be as large as the one through the mucosa in order that the packing may be continued long enough to prevent union of the cut surfaces, otherwise the abscess recurs.

Treatment of Constipation.

That the treatment of functional constipation by the physician of today is almost entirely dietetic and hygienic indicates the trend of medical opinion on the cause of this condition. To the use of improper food, or proper food improperly prepared and too quickly eaten, may be traced most causes of constipation. A common error of diet is the eating of food that is too concentrated—this applies particularly to our old enemy, white bread, and to other foodstuffs made from white bolted flour which contain nothing to stimulate normal peristaltic activity of the intestines.

The whole-wheat food Egg-O-See is a valuable addition to the diet of these patients, as it contains sufficient of the cellulose of the grain to insure normal irritation of the intestinal walls and gives to the food the requisite bulk. Egg-O-See, fruit, fresh vegetables and the free drinking of pure water are valuable auxiliaries in overcoming constipation.

Treatment of Typhoid Fever.

I have tabulated the age, duration of fever, complications, treatment used and results of my cases for the last six years. While the number of cases is too small to prove any definite conclusions, I think they reflect the superiority of the "clean up," "clean out" and "keep clean" treatment.

This tabulation of my 24 cases shows average age 24. Cases treated with sulphocarbolates, 12; cases treated without sulphocarbolates, 12. Average duration of fever in the cases treated with the sulphocarbolates, 17 days. Average duration of fever in cases treated without sulphocarbolates, 29 days. Seven of the 12 cases treated without sulphocarbolates had complications, four of them had hemorrhages. The cases treated with sulphocarbolates were all uncomplicated.

Mortality of cases treated expectantly, two deaths, 16 2-3 per cent. Mortality of cases treated with sulphocarbolates, no deaths.

Summary for the 80 cases of both of us:

We find 26 cases treated expectantly and 54 cases treated with the sulphocarbolates. Of the 26 cases treated expectantly 4 died, giving a mortality of 15 2-5 per cent. Of the 54 cases treated with sulphocarbolates one died, giving a mortality of 1.8 per cent., and this one case not having sulphocarbolates to the end owing to a change of physicians, as before stated.

Total mortality for the 80 cases: 5 deaths, 6 1-4 per cent.—Hyde, American Journal Clinical Medicine.

Half-Cooked Starches a Cause of Indigestion.

Digestive disturbances are due more frequently to failure of digesting carbohydrates than of other food products. Raw starch is particularly indigestible, the heat of cooking being necessary to break up the granules and to perform the first three of the five steps of starch digestion, after which the normal digestive juices will complete the work. The method of cooking is very important, as most cases of amylaceous dyspepsia are due to eating improperly cooked starches. Here is best seen the beneficial results of the extended steam cooking through which Egg-O-See is put, the free action of the diastase ferment and the baking at high temperature. Toast is considered more digestible than bread as it is baked *en masse* and then dry cooked in slices. *Each flake of Egg-O See, thin as fine paper, is toasted* to a crisp and delicate brown. These dry flakes are so readily affected by the ptyalin that the final transformation of starch into grape sugar in the intestines is so easily accomplished as to cause no distress to the patient who finds it impossible to eat bread and other cereal foods which are not only difficult of digestion but cause painful fermentation. Egg-O-See is so easily digested that it is of special service to the dyspeptic, to those convalescing from acute diseases, in pregnancy where nausea and vomiting are easily induced by food, and in other forms of gastric neuroses.

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Miscellaneous.

Reform in the Management of the American Medical Association.

All loyal members of the American Medical Association will read with interest and satisfaction, in the issue of the Journal of September 8, the announcement that in future the editor and his fellow officials will obey the mandate of the members, as voiced by the Medical Record and other independent journals, that the policy of secrecy in the management of the Association be done away with. Grudgingly indeed, and with abuse of the independent journals, the editor, speaking apparently for the trustees, says that, while "there has been nothing to conceal in the past" and "there is nothing to conceal now," and while "full and complete publicity has always been made regarding everything concerning the Association," nevertheless they will henceforth heed the demand of the members for more light, and will "discuss in the immediate future the various phases of the work of the Association and the reasons for the opposition to it." This we understand to mean that in future the members will be kept informed of what is being done and what the management purposes doing, and how the money of the Association is being spent. The officials could not, of course, admit that they had been forced to yield to the demands of those whom Dr. Happel of Trenton, Tenn., chairman of the Board of Trustees, calls, with subtle humor and a keen appreciation of the dignity of his office, "kickers" and men "with a sore toe," so they have surrendered to Dr. Carstens of Detroit, who published a letter in the Journal of September 1, repeating in substance, but mildly and in form of protest, what the Medical Record has so often said in criticism of the management.

Apropos of this letter, however, the title, which we assume the editor and not Dr. Carstens affixed to it, is misleading; it reads: "The Attacks on the American Medical Association." We have heard in private, have read in our exchanges, and have ourselves made many criticisms of the management of the American Medical Association, but we have never heard, read in any medical journal, or made an attack on the Association. It is entirely characteristic of the men who have lately been in control, and whose acts have been so severely criticised, that they assert and pretend to believe that such criticism is directed against the Association. It is not, and these men ought to know it is not. The Association is a magnificent body, and should be, and will be when properly managed, the representative of the entire medical profession of the country. No one who is loyal to the profession, and has its interests at heart, can oppose or attack the Association, but he can and does criticise its management, which is so very far from being the Association. This same spirit of *l'etat. c'est moi* actuates the reply of one of the trustees to Dr. Carstens' letter, and also this editorial of submission to the will of the members; indeed, it is the substance of the only answer which any one of the officials, when his acts are criticised, ever makes. The best refutation of this false assumption is that the Association—the great body of earnest and honest members—has forced the officers to heed its voice and bring their works into the light. The Association has not been the attacked, but the attacker, and it is slowly but surely reclaiming its rights.

The Medical Record has believed, and has repeatedly declared its belief, in the personal honesty of the officials of the Association, but it recognized the fact that the refusal of the management to take the members into its confidence had aroused a feeling of suspicious unrest which not only should be intolerable to the objects of this suspicion, but will seriously impair the usefulness of the Association if not speedily allayed. In these days of the unmasking of corrupt corporation officials every honest man who holds a position of trust should court investigation, rather than seek to suppress it. As Dr. Carstens says: "When such a resolution [to investigate the accounts of the treasurer and secretary-editor] is objected to, it makes men suspicious, and they ask why should anybody object to that? The Good Book says you must not only avoid evil, but the very appearance of evil. This is good doctrine."

We are rejoiced to learn that those in control of the Association have at last been brought to our way of thinking, and if they carry out loyally the promise of reform which they have now made, they will have the cordial support of all the members whose servants they are. There may still be criticism of their acts, but if they accept this criticism in the spirit in which it is made, not resenting it, but meeting it fairly and with good temper, they will learn that it is a tonic, and not an irritant; their task will be lightened, and the Association will enter upon a new era of peace and prosperity. Dr. Carstens says the trustees are lacking in tact. The writer of the editorial of submission, to which we have referred, has not displayed overmuch of this virtue, but he has made a beginning which is full of promise.—Medical Record.

Science and Medicine for Autumnal Coughs and Colds.

Have your patient bathe the feet in hot water before retiring and drink a pint of hot lemonade. Two Antikamnia and Codeine Tablets taken with the lemonade will quiet the nerves, produce sleep and help break up the cold.

Patients should be advised, when tempted to cough, to take a deep breath, filling every air cell, holding it until the warming, soothing effect comes, or so long as is reasonable, and mark the mollifying result on the cough, which, even when the cough seems unavoidable, will often be found under control. It will help to minimize the cough and in the milder cases will stop it altogether after a little perseverance. The explanation of this is that there is a liberation of nitrogen in the air cells, which has a quieting effect on the irritated mucous membrane.

If the cough is persistent or deep-seated, and especially if it is annoying at night, one Antikamnia and Codeine Tablet slowly dissolved in the mouth, will quiet the nervous tickling and stop the cough.

The Effect of Small Quantities of Alcohol upon the Human Brain.

In a recently published lecture by Victor Horsley, the statement is made that "one prominent defect in the study of the alcohol question has always been the want of scientific proof that small quantities of alcohol, such as are used every day in ordinary diet, have any appreciable adverse effect upon our organism. That defect has now been supplied. We have it definitely established by the precise and more delicate investigations of the last ten or fifteen years that it is indeed the case. From a scientific standpoint, therefore, the contention, which we have so often had put before us by our friends, that small doses of alcohol, such as people take at meals, have practically no deleterious effect, can not be maintained.—Review in Glasgow Medical Journal, March, 1906.

Surgical Treatment of Paralysis.

The types of cases discussed by Tubby are those arising from anterior poliomyelitis, spastic paralysis, ischemic paralysis and some traumatic lesions of the nerves. The modern methods of treatment dis-

cussed are tendon and muscle transplantation, arthrodesis and nerve anastomosis. Among the cases reported by Tubby are the following: Grafting the extensor proprius hallucis into the tibialis anticus, and part of the extensor longus digitorum into the internal cuneiform bone for paralytic equino-valgus associated with paralysis of the tibialis anticus; partial paralysis of the extensor cruris; insertion of the ilieo-tibial band into the patella, which was followed by complete recovery of the power of extension of the leg; grafting the distal facial trunk for traumatic facial paralysis into the hypo-glossal. British Medical Journal, March 3, 1906.

A Railroad Hospital at Temple, Texas.

The Atchison, Topeka & Santa Fe Railroad has adopted plans, and within a few days the contract will be let, for the erection of a new railway employees' hospital at Temple, Texas, which is expected to cost approximately $65,000.

Experiments on the Transmission of Syphilis to Apes.

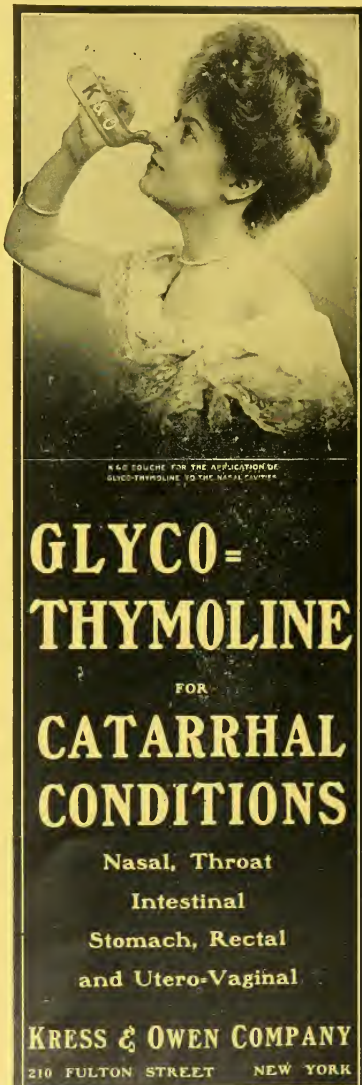
Neisser and his colleagues experimented in Batavia in order to exclude the harmful influence of a cold climate. He made use of orang-utangs, gibbons, and macacos. The progress of the transmitted infection was modified by the diseases which were attributable to captivity, but, notwithstanding, there were some remarkable results. The incubation period varied from fifteen to sixty-five days, depending upon the quantity and freshness of the infecting material. The latter was taken from human beings in various stages of the disease. Human blood and serum did not transmit the disease. Inoculation from animal to animal was effective with material taken from chancres, from the spleen, spinal cord, glands, and testicles. Inoculation was possible by inunction upon scarified tissues. Secondary syphilitic phenomena occurred only with gibbons. The introduction of mercury and iodine did not prevent the development of the disease after the poison had been introduced. Neisser thinks it very probable that the cause of syphilis resides in the spirocheta, but he failed to find it in a series of fresh cases in both men and apes.—Fortschrift der Medizin, February, 1906.

The Influence of Sugar on Work.

Fere (British Medical Journal) brings forward experimental evidence to show that there is no paradox in the statement that sugar may be a condiment rather than a food. Most observers who have examined the effect of the ingestion of sugar on the power of doing work have come to the conclusion that sugar directly increases this power. Fere, quoting elaborate experiments done on himself with a Mosso ergograph, points out that the sensory effect of the sugar's sweetness has been overlooked; he finds that sugar diminishes the power of working, excepting for the short initial period during which the sensory stimulus of its sweetness lasts, and, like any other sensory stimulus, increases the power of doing work. Hence sugar, like kola, coca, or alcohol, diminishes the amount of work that can be done in an hour or in a day, but increases the force of a single shorter effort. Sugar is a stimulant, and, like anything else that excites, accelerates the onset of fatigue.

Concealed Hemorrhage in Typhoid Fever.

Roman (British Medical Journal) has examined the feces in fifty cases of typhoid fever with a view to the detection of small amounts of blood. The tests used by him were the guaiac resin and aloin reactions on an ethereoacetic extract of the feces (15 to 20 gr.) with the addition of a little water. As a matter of practical experience it does not appear to be absolutely necessary to make an extract



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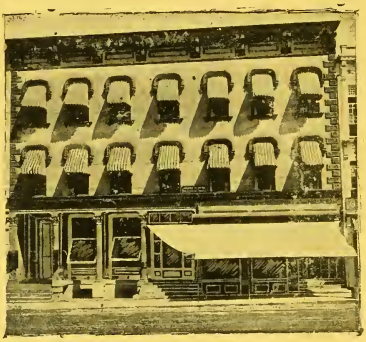

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of the feces, as just as good results were obtained by merely shaking up with a little water. Water alone, if it contains any iron, will give a reaction to the guaiac test, but the H_2S of the feces corrects this fallacy by precipitating any iron which may be in the added water. Of the two tests, the guaiac appears to be the more delicate, for this gave a positive reaction in cases in which the aloin test was negative, and in which even the spectrum gave no blood lines. As soon as the patients returned to a meat diet the fecal examinations were discontinued, but of the 50 cases examined, blood was found in the feces in 16, but two of these cases must be excluded. Of the 14 cases, 7 were severe (1 death), 3 moderately severe, and 4 slight. Of the 34 cases in which no blood was found, 11 were severe, 15 moderate, and 8 slight.

It is important to note that in some of these cases a positive blood reaction was the first warning (sometimes three or four days before) of severe intestinal hemorrhage later; and as far as the anthrax cases go they seem to show that the presence of a positive blood reaction in the feces in cases in which there is evidence of peritonitis is indicative of a perforative peritonitis rather than of peritonitis due to mere extension of the typhoid. The author found that the administration of a mild purgative was liable to be followed by evidence of blood in the feces. The presence of blood tends to show that the reparative process in the bowel is not complete. Lastly, no inference as to the gravity of the case can be drawn from the presence of blood. These chemical traces may be found in light cases as well as in those that are more severe.

Cases of Intubation of the Larynx in Diphtheric Dyspnea.

McCaul (Dublin Journal of Medical Science) gives the following advantages of intubation: (1) Great diminution in the mortality compared with tracheotomy, especially during the first three years of life. After the sixth year tracheotomy is usually preferable. (2) The absence of a wound in the neck. (3 The rapidity with which it can be performed. (4) The slight danger of subsequent pneumonia. (5) The ease of performance compared with tracheotomy. (6) The small amount of subsequent care required. The disadvantages of this operation are: (1) Risk of dislodgement of the false membrane by the tube while being inserted with danger of suffocation before tracheotomy could be performed. (2) Danger that the tube may be coughed up and asphyxia result before it could be replaced. (3) Difficulty of removing the detached membrane through the tube. (4) If pneumonia develops it is impossible to keep the tube free from the viscid secretion, which thus increases the dyspnea.

Clinical Diagnosis of Pulmonary Abscess.

Rieder (Munchener med. Wochenschrift) describes the case of a patient who showed an irregular fever without chills, and with indefinite percussion and auscultation findings. The sputum was abundant, but contained no elastic fibers, albumen, or crystals. A cavity in the lungs could not be definitely determined, but the presumption of abscess was confirmed by the X-ray findings. Treatment was expectant, using expectorants and inhal-

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ations and trusting to a rupture of the abscess into the air passages and its evacuation with the sputum which occurred. The value of X-ray work in these cases is emphasized and leads to the suggestion that abscess of the lung is more frequent than has been before suspected.

The Treatment of Fractures.

Anton (British Medical Journal) recommends and describes an apparatus invented by himself. This consists of fourteen pieces of aluminum which can be conveniently packed up, and together suffice for the treatment of all the fractures occurring in the upper and lower limbs, and for fractures of the clavicle. They are to be padded with cotton-wool, and kept in place by bandages, for the application of which they are appropriately pierced. The two plates, right and left, for application to a fractured clavicle are grooved to keep the ends of the bone in place. Six pieces suffice for the upper limb, and can be used for the right or left side. They are grooved to fit into one another, and a telescopic arrangement provides for the adjustment of the apparatus to the length of the injured part. For fractures of the lower limb extra pieces are provided, ingeniously arranged so as to strengthen and fix any selected part of the apparatus. Each piece is stamped with its name and an indication of the locality for which it is intended. The pieces are illustrated both separately and in position, and the author adds a brief account with reference to his own methods of the treatment of ordinary fractures.

Serotherapy in Puerperal Sepsis.

Eggel (British Gynecological Journal) reports upon the effects of antistreptococcic serum in ten cases of the severest puerperal infection. In two instances, which from the first had all the characteristics of general septicemia without any tendency to localization, and which from the fourth and fifth days respectively were treated with large doses (amounting to 140 and 160 cubic centimeters on the whole), the success was most brilliant, and not inferior in effect to the known action of diphtheric serum, either in regard to improving the subjective state of the patient or reducing the temperature. The treatment was purposely confined almost exclusively to the serum, and the truth of this statement is evident from the curves of temperature and pulse which Eggel shows. In three other cases also which were instances of the hematogenous form of puerperal infection without definite localization, the serum was found to have a decidedly beneficial effect on the temperature and on the course of the disease generally. Among the remaining cases in which the serum had no effect was one of severe pyemia ending fatally, in which, from want of experience, the doses injected were evidently too small; there were two other fatal cases—one from purulent peritonitis, in which a perimetric abscess was formed, and one which was withdrawn from treatment after the first injection had been given, apparently with good effect, and which ended fatally much later under symptoms of pyemia. No evil effects could be attributed to the injection of the serum, except urticarious eruptions and some days muscular pain, in two patients only.

A Case of Successful Excision of the Right Lung for Pulmonary Tuberculosis.

Stretton (The London Medical Lancet) describes the case of a female, aged 28, who had definite signs of disease at the right apex: the illness was of four years' duration; in the last year and a half there was a continuous cough with expectoration and night sweats. There was dullness as far as the third rib, tubular breathing and crepitant rales.

Under ether anesthesia, an incision three inches long was made with its center over the third rib, two inches from the sternum; about four inches of the third rib were removed. On opening the pleura the latter was found to be everywhere adherent; the adhesions were loosened carefully with the hand as far as the third rib; this portion of the lung was surrounded with a serre-noeud and cut away, leaving a stump of about the size of a five shilling piece.

For the first 24 hours the patient was in a condition of collapse. During the next few days there was considerable hemorrhage both from the wound and from the mouth. On the seventh day hemorrhage ceased, but symptoms of sepsis intervened which required a counter-opening in the back, through which a large drainage tube was passed. The wire came away on the eighteenth day and recovery was uneventful. The wound was entirely healed three months later. Soon after this all cough and expectoration ceased. The excised portion of the lung was tuberculous and contained a cavity. Six months later the patient was reported well.

Some Obscure Cases of Urinary Disorder.

Elsworth (London Practitioner) says that cystitis of long duration, due to a primary lesion of the bladder, and accompanied by acid urine, is a very common disorder. Urinary disorder with acid pyuria and frequency of micturition does not mean that the bladder is excluded and that the lesion is necessarily in the kidney. There may be extensive disease of the kidney, without urinary symptoms and with normal urine. There may be pain, frequent micturition, and acid pyuria, without disease of either kidney or bladder, the symptoms being due to a lesion in the ureter. The various urinary organs being so intimately connected, the symptoms produced by disease of one may be common to all. Differentiation is possible only by physical examination, in which the cystoscope gives valuable aid. In some cases the administration of a pigment such as an aniline dye facilitates the recognition of a more or less obstructed ureter.

The Treatment of Tetanus.

Lotheissen (The London Medical Lancet) explained the method of treatment of tetanus and the prophylactic measures worked out by him recently. The author employs the serum prepared at Hoechst, in Germany, which is twice or three times as strong as the French preparation, and he injects at least 100 antitoxin units. As regards the nature of the wounds which give rise to suspicion, the writer puts first in order the so-called "street wounds," mostly resulting from collision with cars or other vehicles, falls from horses, or motor-car accidents. These wounds have been in contact with street dirt or mud; they are extensive, and the tissues are bruised.

Another item of importance is the depth of the wounds, because an injury inflicted by a long object, such as a piece of wood, may become infected, and in a deep wound exclusion of air is possible, with consequent favorable conditions for the anaerobic micro-organism. The quantity and virulence of the dangerous material which has been introduced are unknown, so that large doses of the serum are required even in prophylactic injections. As the serum is slowly but continuously excreted by the organism, a repetition of the injection is desirable. He generally gives a second dose after one week if suppuration and fever continue. Acting on this plan he has during the last year seen only twelve cases of tetanus, all of which had also received prophylactic injections, whereas in former years the cases numbered 47, 71, 35, and 58. The onset of the tetanus in the last named twelve cases was no doubt due either to the injections having been given too late or to the serum being too weak.

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At any rate, the attacks were decidedly milder than in former years, consisting merely of some spasmodic attacks of the masseter muscles and of the intercostal and abdominal muscles. In one case a scarlatiniform rash was visible for three days, but no albuminuria or swelling of the joints was noted. One case ended fatally; the patient was a man whose left arm had been smashed by the discharge of a gun, and he was not taken to the hospital until a fortnight after the accident, when the virus had no doubt already taken a firm hold on the nervous tissues.

Ingestion of Sea Water in Tuberculosis.

Charles (British Medical Journal) has treated several cases of pulmonary tuberculosis by administering by the mouth small quantities of sea water, with a view of seeing if as good results cannot be obtained by this method as by the method of subcutaneous injection of sea water carried out on phthisical patients by Quinton. In two out of four cases treated by ingestion of sea water a well-marked remission of the disease has been obtained. He says that the best results are obtained with patients in the first and second stages of the disease; of ten cases, in eight the appetite and general strength improved, the expectoration diminished or ceased, and at the end of a few weeks a very marked amelioration of the lung signs occurred in four cases.

These favorable results obtained by the administration of sea water are considered due to a rousing of the flagging digestive powers, and a comparison of the results obtained in patients treated by this method and in those in whom this treatment was not carried out (although the other customary treatment for phthisis was employed in both classes) has convinced the author of the benefit to be obtained by this method of treatment. This method possesses advantages over the subcutaneous injection plan in that sudden rises of temperature, headaches, backaches, etc., sometimes produced by the latter method, are generally either entirely wanting or very slightly marked.

He has found the ingestion of sea water of use in cases of dyspepsia associated with a diminution of the quantity of hydrochloric acid in the gastric juice; in such cases he finds a rapid increase of the appetite and a marked improvement of the general health. For administration the sea water must be freshly obtained and filtered; sterilization by heat impairs its therapeutic powers; it must be taken on an empty stomach, at first in spoonful doses, half an hour before the two principal meals of the day; in a few days' time the dose may reach half a tumbler. The treatment should be discontinued after every eight or ten days, and then resumed a few days later.

Tuberculosis of the Ovary.

Cornil (British Gynecological Journal) says that tuberculosis of the ovaries is rare compared with that of the tubes. That disease affects the body of the uterus not infrequently, but the collum very seldom. There is often no tuberculosis of the other abdominal viscera associated with the adnexal disease, and pulmonary phthisis is rarely found with tuberculosis of the genital organs; there is, as it

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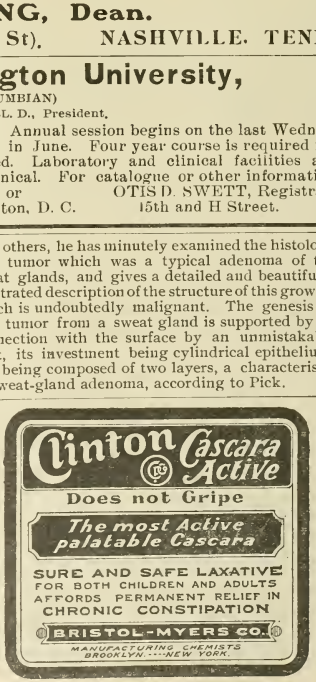
were, an antagonism between the two affections. The author has been able to collect only nine cases of tuberculosis of the ovary. It may arise from the extension of the lesions of tubercular peritonitis to the ovary. One finds a sort of tumor formed by a mass of sub-peritoneal granulations penetrating the interior of the ovary and intimately adherent to that organ. The germinal epithelium on the surface is preserved, and one may see adhesions between the peritoneum and the ovary formed by a tubercle, which is then the original source of infection. When the ovary is infected from the tube the disease assumes a special form, and there are tuberculous follicles in the ovary resembling those in lymphatic glands. There is, however, occasionally tuberculous infiltration of the corpora lutea, and not merely of old ones, but of such as are in course of formation, in which the developing vessels and healthy connective tissue cells are abundant. It is in the corpora lutea that the ovary is most prone to develop new growths, tubercular or otherwise.

Sweat-gland Carcinoma.

Ruge (British Gynecological Journal) says in view of the obscurity which still overhangs the puestion of new growths of the sweat glands, in sqite of the researches of Toerock, Peterson, Pick, and others, he has minutely examined the histology of a tumor which was a typical adenoma of the sweat glands, and gives a detailed and beautifully illustrated description of the structure of this growth, which is undoubtedly malignant. The genesis of this tumor from a sweat gland is supported by its connection with the surface by an unmistakable duct, its investment being cylindrical epithelium, and being composed of two layers, a characteristic of sweat-gland adenoma, according to Pick.



The Treatment of Surgical Tuberculosis

Low (London Medical Lancet) concludes an article as follows: (1) In all cases "open-air treatment" should be organized to meet the circumstances and requirements of the particular case. (2) That in every case the patient's powers of resistance to the disease should be periodically measured by suitable blood examination. (3) That, where the resistance is found low and there is no evidence of an excessive autoinoculation, use should be made of therapeutic inoculations of Koch's new tuberculin in doses that are accurately controlled both as regards their amount and repetition by examination of the blood. (4) That in cases where there is evidence of excessive autoinoculation absolute rest, with complete fixity of the diseased part, should be prescribed. (5) That in cases where it is evident that the diseased area is circumscribed and practically cut off from the circulation of tissue fluids efforts should be made to improve the circulation through the diseased area. The means we have at our disposal for this are fomentations, the use of certain mild irritants—e. g., liniment of iodin and Scott's dressing, light therapy, general massage, and local massage with carefully regulated movemente. (6) That operative procedures should be directed to the removal of the dead, inert material, whether pieces of bone or collections of pus, and should be conducted with the most scrupulous aseptic precautions.

Taken from the Atlanta Journal-Record of Medi cine:

MR. EDITOR: Your issue of June has just reached me. I have read your editorial, "Not to be Alligned," and from it I draw the conclusion that some of those who have been, and are, prominent in the so-called "re-organization" of the Medical Association of Georgia have made verbal or written protest because you published "a letter from one of our (your) friends, medically, who refused to go into the reorganization." Your editorial recalls to mind an editorial in the Georgia Practitioner, published a short while, I think, before the Atlanta meeting, the gist of which, as I remember it, was that when the reorganization became an accomplished fact, that the Medical Association of Georgia would select some one of the medical journals, now published in Georgia, as the "organ" of the Association which would give the publication so chosen such prestige of circulation and influence that other journals could not continue to be published; and that he accepted it as a forgone conclusion that he would not be able to continue publication of his journal were it not chosen by the Association. His editorial was not in the spirit of criticism, but of willing and necessary acceptance of conditions.

This Practician editorial is not at hand, and if its general meaning has not been correctly stated, I trust the error will be pointed out and that this allusionto it will be accepted as purely impersonal, and only as a link in a chain of evidence to show the correctness of some conclusions at which I have arrived and hope to make evident to others as they are to me.

Kenneth W. Millican, M. D., of St. Louis, Medical Record, July 7, 1906, says:

"The California State Journal of Medicine, in its issue of January, 1906, quoted approvingly a statement from the Journal of Medical Society of New Jersey, that: "The day of the privately owned medical journal is passing away. Its place will be taken by the Journal of the American Medical Association and the various State journals." Also: "The pages of the official organ (meaning the Journal of the A. M. A.) will be controlled by those who control the organization itself, and since the admitted purpose is that it shall be the only medium of communication between members of the profession, there will be no opportunity for the malcontents, however numerous, to get together and organize in opposition to the Oligarchy."

The Etiology of Eclampsia.

Liepmann (Mun. Med. Woch.) describes a series of interesting experiments performed with a view to determining the etiological factor in eclampsia, and they have considerable bearing on the treatment of that condition. The author took a normal placenta, crushed it up in a machine, dried it, and then reduced it to a fine gray powder. One grain of this powder was dissolved in salt solution, and used for intraperitoneal injections into rabbits. The result in nearly every case was that the animals remained very quiet for some time after the injection, and then recovered without untoward symptoms. The placentæ from eclamptic patients were treated in the same way, and one grain injected into rabbits. The animals remained quiet at first, but after a few minutes they became restless, there was retraction of the head, in some cases tonic and clonic movements of the masticatory muscles were noticed, and finally the animals became comatose, with the head lying loose between the fore-limbs. Death supervened in most cases under twelve hours. Thus the eclamptic placenta contains a substance which the normal placenta does not, and this substance is toxic to rabbits.

Further, the placenta from a patient who has had many fits is less toxic than one from a patient who has only had a few, which means that the toxin has passed out of the placenta into the system in greater quantities in the first case than in the second. The amount of albumen in the urine is no guide to the severity of the case, for eclamptic convulsions may occur without any albumen appearing in the urine, or even without any alteration in the amount of urine excreted. The author then considers that a toxin is elaborated in the placenta in cases of eclampsia, and that this toxin passes into the system and then affects principally three organs—viz., the brain, liver, and kidneys. The liver and kidneys are two great eliminating organs respectively of the portal and systemic systems, and are thus readily damaged by any poisons, whether chemical or bacterial in origin, as is indeed seen in a number of infections. Further, the author suggests that the liver attempts to store and to render innocuous this toxin, and thus explains those cases of eclampsia which occur after parturition; they are due to a reinfection from the liver.

The liver powdered up in the same way as the placenta was proved to be toxic to animals, and produced death in nearly all cases.

The brain of eclamptic patients was taken from the postmortem room and treated in the same way, and also injected into rabbits, but was found to be non-toxic; it therefore suggested itself to the author that the brain-substance might be able to fix the toxin, and so render it harmless. With a view to ascertaining whether this was so, some eclamptic placenta and normal brain were crushed up together, dried and powdered, and injected into rabbits, with the result that the eclamptic placenta was now found to be non-toxic to the animals. These experiments are still being more fully investigated. In a similar way the dead fetus was crushed up and powdered, and proved to be non-toxic to animals, thus discrediting the fetal origin of eclampsia.

Five years ago Professor Bumm in Berlin prophesied that if the uterus were at once emptied as soon as the patient had a fit, the then existing mortality of 30 per cent. might be reduced to 5 per cent.

He therefore gives figures to show that in Berlin and Halle, where during the last five years immediate induction of labor has been performed in all

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cases of eclampsia, the mortality has been reduced to 2.8 per cent., and if the last seventy-nine cases treated in Berlin alone are taken into account, it has further been reduced to 1.8 per cent., thus exceeding the great reduction prophesied by Bumm. It is therefore urged that the only treatment of eclampsia is to induce labor as soon as possible, and at whatever cost must the uterus be emptied and the placenta got away.

"Just Enough of Learning to Misquote."

We are disappointed in the secretary-editor of the American Medical Association. We had supposed he had at least the acumen, if not the conscience, to avoid misstatements which are easy of disproof; but it seems he has not even that. Six columns of the Journal of September 15 are devoted to a pretended review of the part the Medical Record has taken in opposing the policy of concealment in the management of the Association, and in nearly every

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line the writer misquotes from this journal or charges us with statements which we have never made. We cannot, in a column or two, which is all we can in decency impose upon our readers in so personal a matter, note all the infractions of truth which occur in this long article. Nevertheless it is due the members of the American Medical Association, so many of whom are readers of the Medical Record, that we should note and disprove a few of these astounding prevarications.

The editorial begins with the now hoary old falsehood that the Medical Record has attacked the American Medical Association. The secretary-editor, in his reiteration of this charge, can only be wilfully saying what he knows not to be so in order to mislead such of his readers as have not the privilege of reading also the Medical Record and so learning the truth for themselves. The insinuation is made that the "attacks on the Association" were inspired by a falling off in the number of subscribers to the Medical Record. This is a stupid guess, for if it were true (which it is not, for there has never been a time in the history of this journal when its circulation was increasing so rapidly as now), it would have been the height of folly to adopt a course which might antagonize some possible subscribers. The writer of the editorial says we asserted "that the House of Delegates at Boston was dissatisfied with the Board of Trustees and that it was denied details regarding the business of the Association." Such a statement is staggering. It is an absolute falsehood made out of whole cloth, without the flimsiest foundation of fact. The fabrication is as foolish as it is knavish, for it is so easy of disproof by comparison with the files of the Medical Record. Again, this garbler of quotations charges that we wrote that at Boston "a strenuous effort was made to get rid of the editor," and then characterizes the statement as "unqualifiedly false." What we wrote was: "It was rumored that a strenuous effort would be made to dismiss the secretary-editor." Really, if it were not unparliamentary we should have to apply an even stronger term than prevaricator to the man who has deliberately and in pure malice changed this quotation in order to make his point. The editor admits that there was opposition to him at Boston, but says "it was limited to the horde of nostrum vendors who have been getting rich by humbugging and deceiving our profession, and the owners or attaches of those medical journals nourished by the same brood, who allow themselves to be used as the mouthpieces and tools of proprietary interests." It is only three months ago that the secretary was cowering under the lash of the stinging rebuke administered by Dr. Vaughan and was seeking by any means to escape the consequences of his outrageous acts; yet now he has taken heart of grace and dares again to insult his masters and to characterize the many honorable members of the Association who have disapproved of his methods as "the mouthpieces and tools of the proprietary interests."

With a brief reference to a purely personal matter we shall have done. The writer of this editorial in the Journal, whoever he may be—the editor is in any case responsible for the misstatements it contains—says that the editor of the Medical Record never attended a meeting of the American Medical Association. For eight or ten years he attended every meeting of the Association, but this was while the now secretary-editor was a student in the Hahnemann Medical College of Chicago or was engaged in homeopathic practice, and so naturally we did not meet. Again he says the editor of the Medical Record became a member of the Association in March, 1906, which is true enough. In company with so many of his colleagues in New York State, he would not subscribe to the Code of Ethics which declared Dr. Simmons and his fellow practitioners unfit to associate with regular physicians, and so he could not join the Association until it had thrown over that curious old document. He was registered, however, at the meetings, paid his dues, and enjoyed all the privileges of a *quasi* associate member. He was ready to join the Association when the rules of this body should be changed so as to conform to the requirements of the physicians of New York State, and he became a member as soon as that was done.

It is not the province of medical journals to bandy personalities, and we shall endeavor not to tax our readers' patience again by noticing any further unveracities in which our disesteemed contemporary may indulge. What criticism the Medical Record has made of any official of the Association has been inspired by a sense of duty, for the columns of the Journal of the American Medical Association are notoriously closed to all communications which reflect in any way upon the acts of the secretary, and it is only in the independent journals that the truth can be spoken. If the managers of the Association adhere to their recently announced policy of open dealing with the members we shall be content with the result of our labor, and they may count upon our cordial support. But they must give their editor-secretary a copy of the Ten Commandments with the ninth underscored, and see that he, or whoever writes his editorials, observes its admonition in his public utterances; otherwise he may some day bring them as well as himself into danger of the judgment. —Medical Record.

Hemorrhage Due to the Low Situation of the Placenta.

Rudaux (La Clinique) points out that the occurrence of hemorrhage during pregnancy or at the time of delivery is often explained by finding that the placental site is situated in the lower segment of the uterus. The condition is not necessarily placenta previa; the placenta may be attached to any part of the wall of the lower third of the uterus. Losses of blood from the uterus are characterized by being either copious, continuous, or recurring. When due to the placental situation they occur during pregnancy, or else tend to complicate delivery and the post-partum period. In discussing a case of ante-partum hemorrhage, he says that it is only possible to form a correct estimate of the amount of the loss by personal observation, which should include a careful examination of the general condition and pulse of the patient.

The patient being placed in bed with the head low, a douche of very hot water should be administered; several pints may be passed in until the returning fluid is no longer blood-stained. The patient must continue in bed for some time after complete cessation of the bleeding. Should the desired result not be obtained, or should the general condition be serious when the case is first seen, it is necessary (with due antiseptic precautions) to rupture the membranes. In multiparæ this interference is not difficult, as the cervix is usually patulous, and it is not usual to find the placenta lying before the cervical orifice. Antiseptic, but not poisonous, injections should be administered every four hours, and a pad kept over the vulva. It is unwise to leave the patient until one hour at least has elapsed since the cessation of all hemorrhage. It is prudent to leave ready a supply of gauze and cotton wool, with the necessary antiseptics and some saline solution, and to instruct the nurse to prepare a good supply of boiling water, and send for assistance should the bleeding recur. In the case of a patient who has frequent or continuous slight losses rest in bed is required, and if possible a hot douche should be given night and morning. If the pulse rate does not rise above 100 it is better to let the pregnancy continue, an increase in the pulse rate accompanied by signs of anemia and

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Listerine is an efficient and very effective means of conveying to the innermost recesses and folds of the mucous membranes that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of Listerine, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

LISTERINE DERMATIC SOAP

A saponaceous detergent for use in the antiseptic treatment of diseases of the skin

Listerine Dermatic Soap contains the essential antiseptic constituents of eucalyptus (1%), mentha, gaultheria and thyme (each ½%), which enter into the composition of the well-known antiseptic preparation Listerine, while the quality of excellence of the soap-stock employed as the vehicle for this medication, will be readily apparent when used upon the most delicate skin, and upon the scalp. Listerine Dermatic Soap contains no animal fats, and none but the very best vegetable oils; before it is "milled" and pressed into cakes it is *superfatted* by the addition of an emollient oil, and the smooth, elastic condition of the skin secured by using Listerine Dermatic Soap is largely due to the presence of this ingredient. Unusual care is exercised in the preparation of Listerine Dermatic Soap, and as the antiseptic constituents of Listerine are added to the soap after it has received its surplus of unsaponified emollient oil, they retain their peculiar antiseptic virtues and fragrance.

A sample of Listerine Dermatic Soap may be had upon application to the manufacturers—

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syncopal attacks is an indication for rupturing the membranes with a view to bringing on labor. Subcutaneous saline injections are required, and four-hourly antiseptic douches with a protective pad over the vulva are advisable.

If the hemorrhage continues, or if the fetus is dead, labor is more speedily brought on by introducing a Champetier de Ribes bag. When bleeding occurs during labor it may be checked by a very hot douche or by rupturing the membranes. Before doing this, it is necessary to make certain that the position is not transverse, or to correct it if needful. Continued hemorrhage with a rapidly rising pulse rate indicates the necessity to terminate the pregnancy without delay. This is best accomplished by dilating the os with Champetier de Ribes's bag or with tampons of gauze, or in urgent cases by manipulation, version is then performed and the fetus delivered rapidly. Injections of saline solution are given to combat the syncope.

Delivery may be accomplished more rapidly if dilatation is complete by putting on forceps, or, in the case of a dead fetus, by using the cephalotribe. Extraction of the fetus is often followed by serious hemorrhage, which will speedily cause collapse. In such cases, if hot douching does not check it, the hand must be introduced and the placenta delivered; this is then followed by an intrauterine injection. The patient requires to be watched for several hours; if the uterus relaxes abdominal massage must be employed and hot vaginal or intracervical douches given. The lower segment of the uterus does not contract well, and it may be necessary to plug the cervix with gauze tampons in order to arrest the hemorrhage. In all cases of hemorrhage the general condition requires that the patient shall maintain the recumbent position, with the head low. She should be given hot-water bottles, injections of ether and caffeine, subcutaneous injections of salt solution, and spoonfuls of hot water wish alcohol in it; inhalations of oxygen are useful when there is a tendency to syncope.

Dr. W. H. Barnett, of Huffins, Texas, in the Alkaloidal Clinic for November, 1904, says:

"I am satisfied that ecthol, a combination of echinacea and thuja, will prevent the sting of bees from hurting him. Let him take dram doses every hour for three hours before he commences to work with them. The reason for the faith that is in me is this: They used to hurt me. Last summer I was taking it for a skin disease and while under its influence I was stung by a wasp on the face and neck. When stung I started to the house to get something to stop the pain and swelling that I expected to suffer with, but instead of pain and swelling, as heretofore when stung, there was no more of either than a mosquito or gnat would have caused.

Spraying for Diseases of the Respiratory Passages.

Dr. David Walsh, senior physician to the Western Skin Hospital, London, writes: Glyco-Thymoline was brought to my notice as an excellent lotion for nasal and oral sprays and washes. On due inquiry it was found to fulfill the two conditions usually recognized by medical men in the United Kingdom as vouching for the character, so to speak, of such a preparation. First, its advertisements are accepted by our three leading Journals, the Lancet, British Medical Journal and the Medical Press & Circular. Secondly, its composition is not a secret, its formula being freely published. Under these circumstances I determined to try the effect of this preparation in a few suitable cases. As a general antiseptic that does not coagulate albumen and is non-irritant, deodorant and practically non-poisonous, Glyco-Thymoline has clearly a wide range of usefulness. My own observations, however, have been practically confined to its use in the nose and mouth, with results that have proved satisfactory in every instance, especially in acute coryza, pharyngitis, influenza and septic conditions of the mouth.

THE CHILDREN'S LAXATIVE.

Cascarenna a Sweet and Pleasantly Flavored Preparation--Exactly what the Practitioner Needs.

In his perplexity of choosing just the laxative or purgative he wants for a child, particularly for an infant, the physician will find that Cascarenna affords a most satisfactory solution of the question.

Cascarenna has several commendable properties that other laxative compounds do not possess. It is agreeable to children, being sweet and pleasantly flavored. There is no difficulty in getting them to take it, a point that mothers and nurses appreciate thoroughly. It is a happy combination of well-tried laxatives and gentle purgatives; hence it is not an experiment to prescribe Cascarenna for the first time. It does not gripe or derange the digestive system; and owing to the presence of cascara sagrada it has a tonic laxative action that imparts to it double value in the treatment of the constipation of infancy and childhood. Finally, Cascarenna is a thoroughly efficient and reliable therapeutic agent, from which the practitioner may confidently expect only the most satisfactory results.

Each fluidounce of Cascarenna represents:

Cascara Sagrada, 40 grains; Senna, 120 grains; Potassium and Sodium Tartrate, 24 grains; Chenopodium, 8 grains; Pumpkin seed, 8 grains; Sodium Bicarbonate, 4 grains. Agreeably flavored with aromatics.

The dose for a very young infant is 5 to 10 drops; a child one year old may take 10 to 20 drops; older children 20 drops to one teaspoonful, according to circumstances.

Cascarenna is prepared by the well-known house of Parke, Davis & Co., which is a guarantee of its reliability.

In prescribing the products of Manufacturing Pharmacists, we should be guided to a great extent by the business standing of the manufacturers. No other house in the South or West has a better reputation for strict integrity than the Robinson-Pettet Company, Louisville, Ky. We do not hesitate to recommend the preparations advertised by them on page xviii, this issue.

The School-room as a Factor in Diseases of Young Girls.

There is no disguising the fact that our system of imparting knowledge by imposing excessive intellectual labor and stimulating competitive zeal in the school-room is very largely responsible for most of the nervous disorders of the young women of today.

That sustained mental exertion is a menace to the health of girls at the age of puberty, there can be no denying. Yet that is precisely the system in vogue at our institutions of learning at the present time.

While it is true that modern architecture has greatly improved the hygienic condition of the study-rooms, it is highly probable that the present rush and hurry methods of instruction are even more injurious to the physical state of our young women than was the faulty system of ventilation, until recently endured.

The worry and excitement attendant upon present-day school life is, undoubtedly the prime cause of a governing percentage of the neurotic disturb-

JOHANN HOFF'S MALT AND IRON

(PEPTONATE OF MANGANESE AND IRON.)

Is an ideal preparation to build up

BLOOD AND BODY

(Each wineglassful contains 1 gramme of Peptonate of Manganese and Iron.)

It is a Nutrient Oxygen Carrying Agent

Contains only a minimum amount of alcohol (less than 3%); is more readily absorbed into the circulating fluid than the iron preparation by itself.

Johann Hoff's Malt and Iron is of marked and certain value in all forms of Anæmia, Chlorosis and general debility.

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ances which are so prevalent among the women of America. In fact, it is quite within the bounds of truth to assert that many of the diseases which present themselves to the gynecologist have for their origin a nervous system rendered bankrupt by strife in our temples of education.

Mental over-strain, when enforced day after day, soon renders the nerve structure incapable of absorbing adequate nourishment from the blood stream. Ultimately, nervous vitality is almost completely exhausted and depression, gloom, languor and mental impotence ensue.

As the taxation is extended, the condition grows worse until anemia, anorexia, insomnia, melancholia, and, perhaps, hysteria develop.

Inasmuch as it is not within the power of the physician to remedy this evil system of handling our young women, it remains for him to evolve means of attenuating, as far as possible, the injury done, and preventing the development of lasting diseases which have their origin in the shattered nervous system.

This is best accomplished by the upbuilding of the psychical and physical resources of the individual. Not by the employment of stimulants which act, ephemerally upon the organism, but by encouraging functional activity to its maximum degree, consistent, of course, with normality.

Obviously, this must be done by maintaining the entire digestive system at its proper standard, for it is through these channels that vital force is obtained and the well-being of the economy is preserved.

It is not consistent with logic to achieve this end by resort to the employment of those agents which relieve the digestive secretions of their special provinces. On the contrary, it is the very extreme of indiscretion to encourage dependency of the gastric or intestinal fluids, or to aid them in the performance of their duties beyond very circumscribed limits.

Quite the most rational course to pursue is that of extending to Nature gentle, but ample, encouragement through the administration of an agent which is capable of bringing functional activity to its highest point without entailing the necessity of prolonged drugging. It is supremely important that the drug be one that can be withdrawn without leaving the economy disqualified to maintain a normal fund of vital force.

It is here that iron is of the greatest therapeutic use. Not only does it impart to the blood stream a full measure of nutrition-conveyers in the form of hemoglobin, but it substantially increases the capacity of the tissues to absorb and utilize the nourishment placed at their disposal by the circulatory system.

Further, iron, when administered in the proper form, augments functional activity throughout the entire digestive apparatus, and, thuswise, enables the economy to secure the full benefit of the food supply. To this action of the drug is due the greatest profit to the individual resulting from its use.

The objections applicable to some forms of iron gain added importance in this particular class of cases, for the reason that the peculiarities of the disorders under consideration are such as to be greatly aggravated by an improper form of iron.

Chief among these peculiarities is constipation, which is invariably a disturbing factor. The existing constipation is easily made worse by both the carbonate and acid solutions of iron; and, in fact, these forms of the drug are notably stool-discouraging. Digestive processes are also depressed by these forms of iron, and headache frequently follows their use.

Partly because of these objections, but mainly on account of its manifold advantages, Pepto-Mangan (Gude) is given the preference over all other forms of iron, and a mass of clinical data has been brought forth to sustain this opinion. Pepto-Mangan (Gude) is of the greatest aid in the treatment of all the ill-defined disorders commonly encountered among school-girls who exhibit a tendency to anemia, nervous debility, anorexia, moroseness and mental depression.

Obviously, this general emphatic endorsement of Pepto-Mangan (Gude) by the most exacting members of the profession is based upon a critical analysis of its therapeutic advantages over the ancient forms of iron.

The Bacteriology of Ice-cream.

Dr. R. T. Bull, Lecturer in Bacteriology in the University of Melbourne, has recently undertaken an investigation of the purity or otherwise of the ice-cream supply of the city of Melbourne, and his results appear in a report appended to that of the Health Committee of the city of Melbourne. The examination covered a period of four months, from September to December, and involved an exhaustive study of 19 samples of ice-cream, as regards character and numbers of micro-organisms present. The numbers per cubic centimetre (20 drops) are estimated as a result of growth on gelatine plates at the end of six days at room temperature. Of the 19 samples examined, only six contained 100,000 or less per cubic centimetre. As fresh milk obtained from a good dairy where cleanliness is observed in milking should not contain more than 50,000 to 100,000 bacteria per cubic centimetre, and a scalding will practically remove all of these micro-organisms, it would appear that the process of boiling the milk as a method of purification is not sufficiently used in the preparation of ice-cream in Melbourne. As regards the characters of the micro-organisms found in the samples of ice-cream, Dr. Bull remarks that undue exposure to air, use of dirty vessels and impure water are generally indicated bacteriologically by a predominance of color-producing organisms, color-moulds, yeast and liquefying bacteria. The presence of these in a number of the samples suggests want of proper care in these respects. The predominating and non-injurious micro-organisms in good fresh milk are lactic acid bacilli. These are very numerous in some of the specimens, but their absence in several cases where the total number of the bacteria are high—particularly liquefying bacteria, color-producing organisms and resistant spore-bearing moulds—suggests either that the boiled material, perhaps insufficiently protected from atmospheric contamination, is allowed to stand cooling too long before freezing, or that ice-cream that has thawed is sometimes re-frozen without being heated again. In the frozen state the bacterial contents of ice-cream undergo no material alteration, growth being simply inhibited. After thawing, a rapid rise in numbers readily occurs. Dr. Bull concludes that, while the ice-cream supply of Melbourne appears free from any gross contamination with pathological organisms, yet the total number of bacteria in many cases is excessive, and that more attention should be paid to cleanliness, to scalding of milk, and to boiling of ice-cream which has been allowed to thaw, before re-freezing.—Australasian Medical Gazette.

Alypin a Substitute for Cocaine.

Jacobson (Therapie and Hygieue des Auges) relates his experience of three months with the use of alypin, the solution being of the same strength as cocaine. Anesthesia is complete in two minutes and lasts ten minutes. This drug does not dilate the pupil or affect accommodation, has no influence on the tension, and causes very slight transitory hyperemia. Instillation causes no sensation of burning or of dryness. Alypin is especially valuable for the removal of foreign bodies. No toxic effect has been observed from its use.

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Depletes Inflamed Areas
Flushes the Capillaries
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Diagnosis of Carcinoma of the Stomach.

Kuttner (Berliner Klin. Wochensch.) urges that all diagnostic means be exhausted on suspected cases. Under predisposing causes he gives (1) heredity (Ewald, 6-7 per cent.); (2) previous lesions of the stomach, especially ulcers; (3) trauma. Among the early symptoms are (1) progressive stomach symptoms which will not react to the ordinary treatment in a man 50 or 60 years old where there has been no stomach complaint previous to that age. He has, however, observed carcinoma in the young. (2) Acute dyspepsia from a supposed error of diet and a sudden profuse hemorrhage exhibited by a hematemesis or melena often usher in the disease. (3) General dyspeptic symptoms mistaken for innocent catarrhal gastritis. (4) Progressive loss of appetite. Yet he has recorded some cases in which the appetite was good until death. (5) Aversion to meat. (6) Cachexia rarely found at the onset, and edema present usually only in the last stages. (7) Diffuse itching is often an early sign. (8) Angioma of the skin are not of special value. When not congenital are sometimes present in the later and rapid development of carcinoma. (9) Enlargement of the clavicular glands occurs in the later advanced form, but umbilical enlargements may be early and that metastasis in the ovaries should always be sought. (10) Foul regurgitations, or foul odor through the tubes and ill smelling particles in the eye of the tube denote ulceration of the growth. (11) Pain may be absent constantly and is of little value. (12) Vomiting usually denotes carcinomatous orifices and may be absent even in those cases. (13) Muller and Tripler noted diarrhoea in 35 to 60 per cent., but that he and Boas had not observed so large a per cent. As to the production of Hcl he says that (1) its absence is not indicative for (a) it may occur in many other conditions (chronic gastritis, neurosis, atrophy, diseases of the lungs, etc.) and (b) it may be present in carcinoma on the base of an ulcer. Regarding the presence of lactic acid he says this is not positive for (a) it may be absent with carcinoma and (b) it is found with other conditions, but (c) the constant positive finding of lactic acid due to fermentation is of the greatest diagnostic importance; but it is rarely an early symptom. As to the value of the ferments he says they correspond to the findings of Hcl and vary accordingly. Glassner has used them for diagnostic worth as to the location as follows: (a) If pepsin and rennin are both markedly decreased the fundus is the seat of the lesion; if rennin is not decreased in proportion to the pepsin, the tumor is in the pylorus. The trytophan reaction is of little value. The motility is decreased in carcinoma of the pylorus and lesser curvature in the majority of cases; but in fundus carcinoma often remains normal until the very end. The presence of a trace of blood and pus (leucocytes) in the empty stomach is a very valuable finding, for other conditions producing same are easy to exclude. The presence of blood even in traces chemically is one of the most important findings (ulcer must be excluded). Blood in the stools may come from other sources, (diet, intestines, etc.). These occult hemorrhages must be found repeatedly or constantly to be of any value. The constant absence of blood speaks against carcinoma. Tumor tissue found in the vomitus of stomach contents, eye of tube or washings, are positive findings. He has never been able to make use of Hemmeter's method of curetting the stomach. Protozoa, as amœba and flagella, according to Cohnheim, found in the stomach contents are a relative early finding, they do not occur after the contents become fetid. Long, threadlike bacilli have the same importance as the lactic acid, and occur with stagnation and decreased Hcl. Occasional long bacilli are found in the presence of Hcl. Sarcine is found only in carcinoma ulcerosa. The urine and blood are of little diagnostic value. The most positive finding is the presence of a tumor of malignant character connected with the stomach. The writer classifies carcinoma without tumor into the two following groups according to the stomach contents: (1) Carcinoma with a good motility. These present a decreased amount of Hcl, absence of lactic acid, lactic acid bacilli and sarcine. He gives as points of differentiation from achlorhydria, gastritis acidia, "anademe" (atrophy) and neurosis the following: (a) Occult hemorrhage in the stomach contents and feces. (b) Constant finding of pus and blood in empty stomach. (c) Tumor tissue in stomach contents or vomitus. (d) Amœba and flagella in the stomach. (e) The presence of albuminous washings in an empty stomach, according to Sollman. (f) The course and physical findings. (2) Carcinoma with a motor insufficiency coexisting with either (a) free Hcl present—sarcine but no lactic acid or lactic acid bacillus, and (b) Hcl absent and then lactic acid and lactic acid bacillus would be present with no sarcine. In regard to the tumors he demonstrates the difficulty of differentiating between benign and malignant tumors of the stomach, spasms of the pylorus, muscular hypertrophy and thickened scars in the region of the pylorus, exudates or perforations causing localized tumors due to ulcers offer their difficulties. The writer shows that a tumor of three years'

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That which has proven to be the ideal solvent and stimulating alkaline antiseptic is GERMILETUM, its persistent use twice or thrice daily, full strength, or diluted when the mucous membrane is sensitive, will effectually cure the worst advanced case of chronic nasal catarrh.

Dr. A. W. Latimer, late Physician to the St. Louis City and Female Hospital.

I have used GERMILETUM in many cases of catarrh. I consider it a most efficient remedy and really a specific in catarrhal affections.

Dr. A. U. Williams, Hot Springs, Ark.

I have used GERMILETUM in many cases of rhinitis with most excellent results. It is also the most efficient remedy in catarrhal affections.

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I have used GERMILETUM in the most aggravated cases of catarrh and have cured some of the worst cases. I consider it as near a specific in catarrhal affections as can be.

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Nasal catarrh, which has long been an odium of medicine, may now be successfully combated by the alkaline antiseptic—GERMILETUM.

Dr. A. H. Ohman-Dumesnil, Professor of Dermatology in the College of Physicians and Surgeons.

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duration may not necessarily be benign (Gerardt) as it is possible for carcinoma to be seated upon an old ulcer. From the stomach contents this differentiation is made by Gluzinski and Sigel's method but these methods have not proved to be accurate. The presence of metastasis, lymph glands, ovaries, etc., are of value. Among other experiments Kelling found precipitins in the blood present in 15 cases of carcinoma of the esophagus, stomach and large intestine, but Fulo failed to produce a reaction in the blood serum of carcinomatous patients with an abstract of the tumor tissue. With the use of X-ray and Riepel's meal, he says that valuable points have been demonstrated for the diagnosis of carcinoma of the stomach as (1) they produce unfilled spaces and defects in the flow of the fluid mixture through the stomach; (2) they produce abnormal outlines and contours; (3) they modify the peristalsis.

The Clinical and Pathological Importance of Chronic Pancreatitis.

A. W. Mayo Robson states that the relation of the pancreas to diabetes is now generally recognized. However, to wait until glycosuria develops before making a diagnosis is to throw away the patient's only chance of recovery. In nearly all cases, if treatment is instituted early enough, the patient may be restored to perfect health, and a fatal, lingering illness will be avoided. Pathological changes may originate in any of the constituent parts of the pancreas. The effects on the anatomy and functions of the organ will vary, according to the structures which are primarily affected and the nature of the change. Histologically the results of chronic inflammation of the pancreas may be divided into three classes: chronic interstitial interlobular pancreatitis; chronic interstitial interacinar pancreatitis; and cirrhosis of the pancreas. The writer then discusses the etiology of this affection. The onset of the disease varies with the cause. If it is due to obstruction of the common duct by a gallstone, there will be painful attacks in the right hypochondrium, associated with jaundice and possibly with fever of an intermittent type. In certain cases a swelling of the pancreas is noticed, due to enlargement of the head of the gland. Though usually present, pain and tenderness may be little marked, although sometimes the suffering is severe. Jaundice is not necessarily present at first. Dyspeptic disturbances are constantly associated with affections of the pancreas. In many cases of pancreatic disease excessive wasting is a prominent symptom. The frequent, bulky, soft, white motions, so typical of advanced pancreatic disease, owe their bulk partly to the abnormal quantity of undigested material, and partly to the excessive fermentation. A useful diagnostic point is the presence of alimentary glycosuria. In many pancreatic affections there is a tendency to general hemorrhage from wounds, or from mucous surfaces, and to petechial hemorrhage in the skin, or to more extensive bleeding in the subcutaneous tissues. There is often a considerable degree of anemia noticed in these cases of chronic pancreatitis. The diagnosis of this disease is not usually very difficult, although no one symptom can alone be relied upon as diagnostic. The prognosis of chronic interstitial pancreatitis surgically treated is very favorable if

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the case is taken in time. A marked hemorrhagic tendency generally heralds the near approach of a fatal termination. Preventive treatment is most important. Rational treatment should aim at the cause, whatever that may be.—The Edinburgh Medical Journal.

Sugar in the Treatment of Phthisis.

Massalongo and Danio, recalling the fact that sugar ranks high among the heat-producing substances, and that it is also a powerful dynamogenic, recommend its use in the wasting of phthisis. It should be given in considerable doses—100 to 500 grams per diem, in addition to the amount consumed in ordinary diet, the rule being from 5 to 12 grams per kilogram of body weight. Under this teeatment excellent results were obtained, 8 to 15 kilograms weight being put on in some cases in the course of two or three months. No sugar was ever detected in the urine during this course of treatment. The best results were obtained in febrile forms of phthisis with slight evening rise. No dyspepsia or intestinal fermentation was experienced in the authors' cases. The excessive sweetness may be partially masked by giving it well diluted with milk or coffee, or by adding some bitter tincture. It might take the place of cod-liver oil where this drug is badly borne.—British Medical Journal.

The Treatment of Exophthalmic Goiter by Forced Feeding.

Alt presents a number of photographs to show

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the value of the dietetic treatment both of exophthalmic goiter and of cretinism. In both of these conditions he considers that the results to be obtained by over-feeding are of the greatest importance, though in order to carry the treatment out most effectively careful metabolism determinations are necessary. Caution is needed in planning the dietary in different cases, for the tolerance for carbohydrates is often quite restricted and the kidneys also are apt to be insufficient. He begins the treatment by giving a salt free diet, of which milk is the most important constituent, until the stored-up chlorides have to a great extent been excreted and the existing edema has subsided. In continuing the treatment the salt of the diet is kept at about four grams per day, the amount of fluid is restricted, the carbohydrates are graduated in amount according to the tolerance, and the caloric value of the food is raised as high as possible by the use of albumin and fats. The latter are especially useful and are given in the form of milk, whipped cream and unsalted butter. Under this regime the body weight increases, there is a subsidence of many of the characteristics of the disease, and increased functional capacity of the previously insufficient organs.—Munchener med. Woch.

A Pelvis with a Conjugate Diameter of One Inch.

Bucura, Vienna (Montaschr. f. Geb. u. Gyn.) describes a very unusual case of pregnancy in a woman whose pelvis, as a result of rickets, gave a measurement of but 2 1-2 cms. true conjugate. The extreme deformity is illustrated by an x-ray picture of the pelvis. At the time the patient was carried to the hospital the child had evidently died and the temperature risen to 38.5 degrees centigrade (101.3 F.), pulse 112. A Caesarean section with removal of the uterus was rendered necessary by the unusual smallness of the pelvis. This was done and the patient made a good recovery. The uterus was not opened at the time of operation. By repeated examinations afterwards a fairly accurate wax model of this deformed pelvis could be worked out. Only four cases of so markedly contracted a pelvis are recorded in all literature.

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Typhoid Diagnosis.

Poeppelman (Deutsch. med. Wochenschr.) after pointing out the difficulties in the way of an early diagnosis of typhoid fever, the writer presents a method of his own. Blood, obtained by puncturing the sterile finger tips, is spread in the usual manner upon absolutely clean slides. The latter are then stained according to Jenner's method and examined under a high power. Even during the fiist few days of the disease, unmistakable typhoid bacilli may be seen lying between or sometimes within the red corpuscles, often appearing in very great numbers and never entirely absent! This astonishing statement must for the present at least be very sceptically received.

Lumbar Puncture and the Cerebro-Spinal Fluid.

Rehm (Neurolog. Centralbl.) gives the results of six months' experience of lumbar puncture in the Clinic for Psychiatry in Munich. He also reviews the subject. Quincke was the first to use it clinically. As regards the chemistry of the fluid—it contains 2-1 part per 1000 globulin; when lymphocytosis sets in albumin also appears. Nissl found a great increase in the albuminous content in cases of general paralysis. This observation the experience at Munich confirms. Arterio-sclerosis gave no increase in albumen. As regards lymphocytosis, Rabaud concluded that in tertiary syphilis the fluid was unchanged unless the nervous system was involved. He thinks lymphocytosis of the cerebro-spinal fluid the first sign of such involvement. Milian considers there is no lymphocytosis in alcoholic cases, unless such a lesion as meningo-myelitis be present. Balogh differs from other investigators. He found lymphocytosis in epilepsy, melancholia, senile dementia and dementia precox. In the case of melancholia it disappeared on recovery. All authors, including Nissl, agree on the almost constant presence of the condition in cases of paralysis. French workers refer the lymphocytosis to some meningeal condition. Merzbacher (Heidelberg Clinic) is against this view; he refers it to syphilis. Fuchs and Rosenthal found lymphocytosis in 94 per cent. of syphilitic nervous cases and in only 6 per cent. of other nervous cases. They devised an easy method for counting the lymphocytes. Rehm reports on 99 cases. From these he concludes that in chronic alcoholism lymphocytosis does not occur. This fact must be of great importance in the differential diagnosis of this disease and general paralysis. Dementia precox gave negative results. In general paralysis, in all of 39 definite cases lymphocytosis was present. Of two cases of syphilitic cerebral lesions both were positive. Arterio-sclerosis gives positive results only if it be of a syphilitic nature. Epilepsy and melancholia were negative. Thus we have a definite lymphocytosis of the cerebro-spinal fluid in general paralysis; cerebral syphilis usually, produces it; if it be present in the case of a cerebral tumor, that tumor is probably syphilitic; epilepsy does not produce it; it occurs in idiocy combined with syphilis; it is absent in chronic alcoholism.

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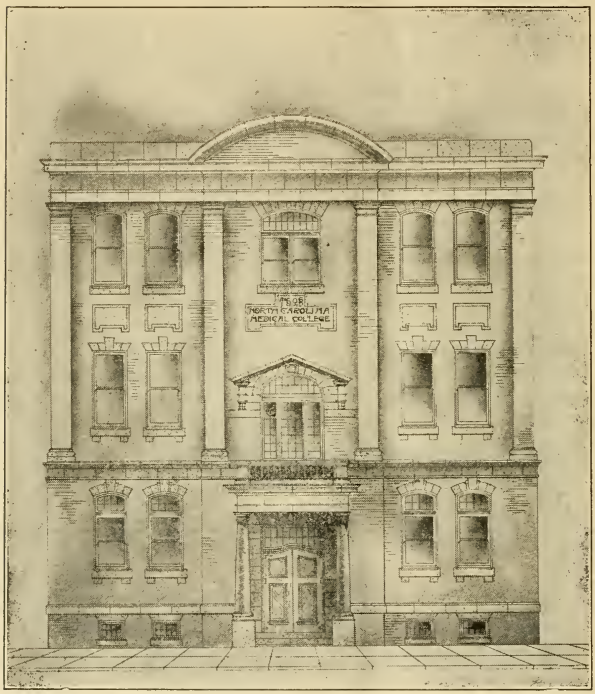

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Goitre.*

By Dr. Annie L. Alexander, Charlotte, N. C.

Mr. President and Gentlemen:

Having been a victim of exophthalmic goitre and the number of cases that have come under my observation during the past few years, has led me to study goitre and to write this paper.

It is a much more frequent disease in this part of the country than is generally supposed. I have seen many cases during the past six years. Only a few of these wanted treatment for it. Out of 100 college girls examined for physical culture classes, 11 had thyroid enlargement. Very few of the cases I see want treatment, as they suffer no great inconvenience from it.

Goitre is an hypertrophy of the thyroid gland. It may be of one or both lobes, or of the isthmus alone. The lobes of the thyroid are closely applied to the sides of the larynx and trachea, and extend backward to the oesophagus. The recurrent laryngeal nerve is in the angle between the oesophagus and the trachea on a level with the isthmus. The gland is covered in front by the sterno-hyoid, the sterno-thyroid and the omo-hyoid muscles. The lateral surfaces lie in contact with the sheath of the common carotid artery. The lower end of each lobe lies on the fifth or sixth ring of the trachea, the upper end is on a level with the middle of the thyroid cartilage.

In many cases there is a third lobe, extending from the isthmus up to the hyoid bone, to which it is attached by muscular or fibrous tissue. The gland is firmly fixed to the larynx and trachea, so that it follows them in deglutition. It weighs from one to two ounces. It is relatively larger in infants than in adults; larger in females than in males. The anatomy of the gland is liable to great variations. It is rich in blood supply from four arteries. They form many anastomoses. The nerve supply is from the middle and inferior cervical sympathetic ganglia. The colloid substance is the secretion of the epithelial cells which line the alveoli. The central part of the alveoli acts as a reservoir where the secretion is stored. The secretion escapes by the lymphatics. The activity of the secretion varies. The influence of this secretion on the body is very wonderful. Myxedema results from failure of the normal supply, and an oversupply produces symptoms directly contrasting to myxedema. Myxedema is a very interesting condition, and is quite amenable to treatment since organotherapy is so well known.

Goitre is very prevalent in parts of the United States and Canada. It is endemic in parts of Italy and in the mountains of Switzerland.

There are three varieties of simple goitre; parenchymatous, in which all the structures of the gland are enlarged and increased; vascular, in which the enlargement is chiefly due to dilatation of the blood vessels; cystic, in which the enlarged gland is made up of large cysts.

The enlargement may be uniform or affect only one part of the gland. When small, simple goitre causes no inconvenience. Its growth may compress the trachea and oesophagus, and interfere with respiration and deglutition. It may extend behind the sternum and compress the veins. It may extend outward and upward and compress the carotids and jugular veins.

Aside from pressure symptoms, simple goitre gives no trouble, unless "it goes to the brain"; that is, the knowledge of its existence causes great mental anxiety and consequent derangement of the secretory functions.

The cause of goitre is not known. Medicinal treatment of goitre is very unsatisfactory. The most common treatment is iodine in some form, internally and externally. The compound tincture of iodine, 10 to 30 drops three times a day, has proved beneficial in some cases. Iodine is borne badly by some stomachs; if given in sweet milk there are no unpleasant symptoms and the taste is completely disguised. This treatment often fails.

Thyroid extract seems to offer more hope of success than any other constitutional remedy, but it more often fails than cures. It is only in the parenchymatous variety that it does any good. It acts by supplying the needed material to the system, thereby causing disuse and consequent atrophy of the enlarged gland. It is advisable to begin with ten minims of the liquor thyroidei each night. In the course of a week, if this does not cause the pulse to go over 100 per minute, two doses a day may be given; if thif does not accelerate the pulse it may be given three times a day. The treatment should be given three or four weeks to give it a fair trial. If the tumor is found to be diminishing, continue the treatment. The thyroid tablets, 3 to 5 grains, may be used in the same way.

In large parenchymatous growths this

*Read before the North Carolina State Medical Society at Charlotte, N. C.

treatment has been successful, removing pressure symptoms and the necessity for operation. Experiment has shown that the use of thyroids in healthy animals has caused decrease in the size of the normal gland.

The injection treatment has been used with good results in some cases. A saturated solution of iodoform in ether, beginning with 5 drops, increasing to 25, injected into the interior of the tumor once a week, has been used successfully by some. This treatment is quite painful; severe pain in the side of face, head and ear. This subsides in a few moments. Peper and Da Costa used ergotin by injection with good results. There is little danger of suppuration if asepsis is carried out. Electrolysis is curative in some cases; more often it fails. It is most useful in small goitres in the early stage. It should be used with caution, as it may prove harmful.

In 1891 Dr. Hunter McGuire described the cataphoric treatment. A cup-shaped electrode is used in which is placed some absorbent cotton, first dipped in warm water and squeezed dry; on this a few drops of iodine are poured. This is placed over the most prominent part of the goitre; the negative pole is placed on the back of the neck. Six or eight milliamperes are passed daily for ten minutes. A current much stronger blisters the surface, which should be avoided.

My experience has been that medical treatment is of no value; the cases which have recovered under treatment would have recovered spontaneously and did so in spite of the treatment. Dr. Osler says: "The medical treatment of goitre is very unsatisfactory. The affection usually comes under the care of a surgeon."

Exophthalmic goitre, known also as Graves' disease and Basedow's disease is a disease of great interest and importance. This disease was described in 1820 by an Italian writer. In 1843 Graves published his views of it; in 1840 Basedow, in Germany, wrote of it.

Etiology.—Exophthalmic goitre usually comes between 20 and 40 years of age. It occurs five or six times more frequently in women than men. A neuropathic heredity seems to play a part in the development of it. Pubescence in girls seems to predispose to it. Mental shock, prolonged grief and pregnancy seem to excite it. It is sometimes associated with chorea, epilepsy, and hysteria. It is sometimes found affecting several members of the same family. I know a family of mother and three sisters having it.

Olmstead, of Ontario, says: "Although the thyroid gland is not the cause of Graves' disease, it certainly has a very great influence on its course."

It is a complete contrast to myxedema, which is due to insufficient thyroid secretion.

Graves considered it a disease of the heart. Some regard it as a pure neurosis. Its sudden onset after profound emotion, in some cases, favor this theory. Other investigators attribute it to mechanical pressure of the cervical vessels and nerves.

At present there are two theories as to the cause of the disease. One points to the medulla and sympathetic nervous system; the other to the thyroid gland. The cardiac, vasomotor and thermic disturbances seem to point to the medulla. The central and sympathetic nervous systems have been examined, post mortem, in numbers of cases and have been found normal in some, and in others various lesions have been found which might have been secondary. Supporting the views of those who hold that the thyroid is the cause of the disease are: the enlargement of the thyroid; cures and myxedema which have resulted from removal of the gland or destructive changes in it. Opposing this theory is the fact that Graves' disease may exist without thyroid enlargement.

Symptoms of exophthalmic goitre have resulted from over-doses of thyroid in normal individuals, and in treatment of simple goitre. If it is due to excessive thyroid secretion, the question still confronts us, what causes the disturbances of the thyroid function.

Morbid Anatomy.—The thyroid may show changes from simple congestion to the most destructive changes. The vessels are thickened and dilated; the veins on the surface are large; the tumor is very vascular. On section it exudes less colloid substance than normal. The general appearance has been compared to that of the mamary gland during lactation. There is active connective tissue proliferation. The number of alveoli is increased, not only by total increase of gland, but there are more in an equal area than in a normal gland. The walls of the alveoli covered with the secreting epithelium form folds and project into the alveoli, encroaching upon the storage space of the colloid substance. By these folds the secreting part of the gland is increased. The epithelium is changed from flat to columnar. Instead of the alveoli being filled with colloid substance, they are partially empty, showing a rapid removal of secretion; the secretion is more watery. In an old standing case where the symptoms are subsiding, and the patient on the way to recovery, the alveoli diminish in number and a condition of fibrosis takes place. If

the fibrosis advances too far symptoms of myxedema develop.

Symptoms.—There are five cardinal symptoms; goitre, exophthalmos, tachycardia, fine tremor, and elevation of temperature. To these may be added a disturbance of function of almost every organ in the body. The onset may be sudden, but as a rule it is more gradual, and may be chronic from the beginning. All of these cardinal symptoms may be present—any one or several of them may be absent. Of the five, tachycardia may be the only one present. It is the only one of the five, taken alone, that is essential. In the beginning the goitre may not be noticeable, or may not appear, or appear at intervals. The cardiac disturbance may be the first symptom to appear. The pulse becomes rapid, 120 to 130 to the minute; 150 to 200 has been observed. The rythm as a rule is regular; but it may be greatly disturbed and the heart's action be tumultuous. Murmers are sometimes heard. The victim may be conscious of pulsation in almost every artery. In Paesler's statistics of 58 cases, 57 showed tachycardia. The exophthalmos may appear before the goitrous enlargement, or simultaneous with it, or may not develop at all. Here we are apt to make a mistake in our diagnosis. Both eyes are usually affected. Where there is no occular disturbance the gravity of the disease may be overlooked, and the disease be mistaken for simple goitre. The tachycardia, tremor, and rise of temperature should point to Graves' disease. The occular protrusion and inability to close the lids cause inflammatory conditions. There are motor disturbances of the eyes.

The entire muscular system is affected. A fine tremor is a very constant symptom. It may affect the hands only, or the whole body. A slight elevation of temperature is generally present. Often before any of the cardinal symptoms develop the patient may present mental excitation, impulsiveness, restless activity, emotions easily excited, irritable, fault finding, ungrateful and generally hard to live with. In some cases the excited mentation goes into insanity. Undue mental stimulation is characteristic of this disease, as mental apathy is characteristic of myxedema.

In some cases the skin is marked by increased pigment, sometimes resembling the bronze-like appearance in Addison's disease. Anaemia and loss of flesh may develop; vomiting and diarrhoea may occur.

George B. Murray, of London, says: "The most rational explanation of the complex symptoms of this disease appears to be that they are due to an excessive formation and absorption of the thyroid secretion, which may or may not be altered in composition, and to the constant excess in the blood and its action on the metabolism generally, but more especially of the nerve centers in the medulla."

Treatment.—Medical treatment is not very satisfactory. Rest and quiet are of the greatest importance. Some cases rapidly recover under Wier Mitchell's rest cure. Few patients can afford this plan of treatment. Rest in bed for six months with large doses of belladonna to check the hypersecretion has been used successfully. If the heart symptoms have been severe, convalaria has been of most service. Strychnia, digitalis, and stophanthus act favorably on the heart in some cases. Where there is much nervousness the bromides have done good. Inunctions of the red iodide of mercury over the goitre have seemed to help in some cases. Tablets of dried thymus have been used with success. Thyroid extracts are positively contraindicated in exophthalmic goitre—all the symptoms are increased, there being already too much of the thyroid secretion in the system.

Surgery offers the most certain hope of cure. Thyroidectomy is a very serious operation, and is frequently attended with grave results. The only operations feasible are partial thyroidectomy and extirpation of the cervical sympathetic nerve and ganglia. The patient should have several weeks preliminary hospital treatment.

Maden has reported two deaths following the operation, from tetany and from absorption of the colloid substance by the wounded tissues.

The most common symptoms after operation are great restlessness, rapid pulse, fever and rapid respiration. These symptoms have not been observed after total thyroidectomy, showing that they are due to absorption of secretion from the wounded gland. This absorption is a real danger and should be guarded against by very careful handling of the gland, so that the colloid substance will not be squeezed out into the lymphatics and into the blood current. Free drainage should be provided for.

There is little doubt that the removal of a part of the gland is the rational treatment for this disease, but on account of the great risks the operation should be undertaken only by a surgeon who has had special training in this particular operation.

Prof. Kocher, of Bern, is the pioneer in this branch of surgery. He has treated more than 2500 cases of goitre. Thyroidectomy for Graves' disease is becoming more popular every year. The operation is frequently done in our large hospitals.

Prof. Kocher lays down the following indications for operation:

1. As soon as the goitre causes dyspnoea or inflammatory changes occur, or there is the slightest suspicion of malignant degeneration. 3. All enlarged thyroids classed as deep, having a tendency to grow towards the aperature of the thorax, should be considered dangerous. 3. All goitres that have reached considerable development from the formation of a single large colloid nodes. 4. When with moderate goitre, symptoms like Basedow's disease appear, accompanied by an increased development of the goitre.

Kocher's method of operation is as follows: "The patient having been prepared is placed on the table, the shoulders and throat elevated, head lowered, thus bringing the field of operation well into view. The head is covered with a rubber cap which keeps the hair out of the way. A half sheet, hollowed out for the neck, is placed over the patient and held in position with tapes. The patient's face is covered to prevent contaminations from the patient's face reaching the field of operation.

A 1 per cent. solution of cocaine is injected along the proposed line of incision into the skin and subcellular tissue. A 10 c.c. syringe with a fine needle is used. The needle perforates the skin near the median line and passes through the subcellular tissue till it reaches the outer end of the proposed incision, when the cocaine is gradually injected as the needle is withdrawn. The opposite side is treated in the same way. About 20 c.c. of a 1 per cent. solution are used, and extremely seldom is it necessary to inject any more. A bowed incision is made with the convexity downward across the tumor from one sterno-cleido-mastoid to the other. The incision extends through all the tissues down to the muscles of the neck. All bleeding points caught, the larger vessels being divided between the forceps, this flap is reflected upward together with the fascia covering the muscles. The muscles are now separated in the median line along the whole length of their course, as well as the outer fibrous capsule of the goitre.

If the goitre be very large and sufficient room can not be obtained by retracting the separated muscles, their upper attachments are divided a little on each side of the line with scissors. This will give room enough, and after the tumor is removed they may be stitched back in place. The lateral lobe is now dislocated from its place by passing the finger between it and the capsule. Any veins running between the capsule and goitre are divided between forceps and carefully ligated. By shoving back the capsule from the upper and outer horn of the lobe, the superior thyroid artery may be isolated, ligated and divided. The inferior thyroid is now carefully isolated from the recurrent laryngeal nerve and ligated. It is important at this point to have the patient say "ah," so as to insure the safety of the nerve. The thyroidei ima veins are clamped and divided, the isthmus separated from the trachea with the sound, crushed with the clamp and ligated with a strong ligature. The clamp will crush a large isthmus to almost nothing, so that there is almost no danger of hemorrhage from this source. There only remains now a few attachments of the gland at the sides of the trachea, and it is well to leave some glandular tissue here to protect the recurrent laryngeal nerve. All bleeding points having been carefully caught and ligated with fine silk, the muscles are brought together with interrupted sutures in the median line and the skin wound closed with subcuticular sutures."

Death has resulted from thyroidectomy, from thyroid secretion being absorbed by the cut surfaces. Olmstead thinks it wise to use drainage in large exophthalmic goitre. Dr. Cushing, of the Johns Hopkins Hospital, uses drainage.

The important points about the operation are, asepsis, preservation of the recurrent laryngeal nerve, leaving a part of the gland to guard against myxedema, and prevention of absorption of thyroid secretion.

General anaesthesia is not usually used in this operation. Operators say their patients complain of little or no pain. These patients are stoics. There is pain, and chloroform sometimes has to be given to complete the operation. There is less danger of wounding the recurrent nerve when the patient is able to phonate during the operation. In the hands of a skilled operator this danger is not great. Even when the nerve is not cut the voice is sometimes impaired and may take months to fully recover.

The resulting scar is slight and in a year or two is scarcely noticeable.

Therapeutic Nihilism and the Treatment of Pneumonia.†

By N. P. Coppedge, M. D., Margarettsville, N. C.

I am going to briefly discuss therapeutic nihilism as a specific infectious disease, which has attacked a large part of the medical profession in this time of enlightenment. I shall say, that while not positively proven, it is probable that the germ of this particular disease is as nearly related to the germ of laziness as the bacillus of Eberth is to the para-typhoid bacterium. Among the predisposing causes I shall enumerate lack of knowledge of materia medica, care-

† Read before the North Carolina Medical Society at Charlotte, N. C.

lessness and consequent tardiness in diagnosis, inaccuracy of dosage, the employment of drugs of uncertain strength, the evils of substitution by pharmacists in filling prescriptions, the physician's carelessness in making sure his patient understands and follows his directions, failure on the part of the physician to record and study his cases, failure on the part of the patient to continue treatment as long as necessary, and last, but not least, poly-pharmacy. It may be said with a great deal of truthfulness that the surgeon often plays the part of intermediate host in infecting his medical brother with the disease therapeutic nihilism. This may or may not be because the number of cases turned over to the surgeon by the physician for operation will be about proportionate to the square of the latter's disbelief in the efficiency of measures other than surgical.

Under the head of etiology it would be proper to say something of the distribution of the malady, when it might be mentioned that it is more prevalent among surgeons than physicians, is oftener met with in the city than in the country, and attacks with less frequency those who do their own dispensing than those who do not, and is rapidly on the increase among the laity. Among the symptoms is a noticeably pessimistic inclination to disbelieve reports of cases cured with drugs by brother practitioners without going to any trouble to prove their truth or falsehood. The prognosis is notoriously bad for surgeons and for practitioners in cities, who allow their pharmacists to substitute *ad libitum* in filling their prescriptions. The best treatment for this disease which is affecting so large a part of the medical profession is, as in the treatment of all other diseases, the removal of the underlying causes. First measures should be directed toward the destruction of the germ of the disease, which, as was remarked before, is so closely akin to the laziness germ. Then the predisposing causes should be removed to the greatest possible extent. The surgeon and the practitioner should both study their materia medica more.

Doctors should always be careful to give the patient the advantage of a correct and early diagnosis, using every means at command that they may learn exactly the patient's condition. Much good can often be effected in cases where early diagnosis is impossible, by giving treatment exactly as if you knew your patient had a disease that you may be only suspecting he has. He ought to be always given the benefit of the doubt and given treatment in uncertain cases, if the treatment is not harmful. The physician should always either dispense his own drugs, using only those of known strength, or send his prescriptions to a perfectly reliable druggist, specifying only such manufacturers as have enough righteousness to label their drugs what they are. He should give written rather than oral directions to his patients, and see that they follow them. If he will do all this, and record and compare the results of the various treatments of each kind of disease, insist upon his patient's keeping up treatment 'till they are no longer in danger of relapse, and see that they are not partaking of food containing adulterating or preserving substances, which are directly incompatible with his medicine or in themselves productive of pathological conditions, the therapeutic nihilism with which the practitioner is afflicted will either be greatly ameliorated, or his case is complicated with a degree of mental astigmatism, which renders him incapable of recognizing a fact if he meets it in the road.

Among the most important remedies in the treatment of this wide spread disease of our profession is legislation. We need the enactment and enforcement of pure food laws and pure drug laws. No physician need be surprised to find that his remedial measures fail to benefit a patient who is eating quantities of gypsum, terra alba, alum, borax, formaldehyde, salt petre, salicylic acid, or lead chromate with his daily bread or his daily embalmed beef or pork. If he prescribes Aristol, and the druggist substitutes a patent preparation warranted to be just as good, which afterward turns out to be Fuller's Earth colored with a little oxide of iron, no wonder the doctor, ignorant of the druggist's betrayal of a sacred trust, is inclined more and more to medical pessimism. He need not be surprised that a patient possessing an idiosyncrasy against morphine gets worse when he prescribes a cough syrup with heroin in it, and the druggist puts morphine in place of heroin; And when the State Supreme Court refuses to allow damages when the patient brings suit against the druggist, as was the case in an instance of this kind in the State of New York, his only resource is to go back to his office, a sadder and wiser man, and dispense his own medicines.

With all the political power the 120,000 doctors in these United States might possess, if united, we are allowing ourselves and our patients to be deceived, swindled, and robbed of health and happiness by these deceivers, with little or no attempt on our part to get the needed legislation to stop it. Our enemies are well organized, and are presenting a solid front against our irregular onslaughts. The patent medicine association and the manufacturers of impure foods

and drugs, have so far prevented any adequate laws regulating the sale of patent medicines, impure food, or impure drugs from passing through Congress. To show how inadequate the present laws are, Commissioner Sinclair, in his report to the committee which has been investigating the affairs of the beef trust, says that poisoned rats are daily ground up in the sausage made by that concern, and that there is no law by which a government inspector can prevent it, though it occurs under his very eyes. We have laws to prevent diseased meat being shipped from the United States to foreign countries, but none worth talking about to protect our own people from even more dangerous practices than the sale of measly pork.

It is, however, a matter of the highest importance to both the medical profession and the public that the alarming spread of therapeutic nihilism among the laity should be stopped; first, of course, because unless we stop it our revenues will be cut off; second, we want to stop it, because having at heart the interests of our fellowmen, we wish to keep them from straying off after the false gods of osteopathy, faith cure, christian science, Weltmerism, Dowieism, homeopathy, and patent medicines.

Another thing I want to bring up while discussing the treatment of therapeutic nihilism, is that we country doctors ought not to leave all the experimenting in the use of drugs to the city and university investigators. Where little or nothing is known about the therapy of any particular disease we are justified in doing a little experimenting with drugs hitherto unused in the treatment of the disease in question. Trying different remedies in rotation without reference to their physiological action has been more than once rewarded by the discovery of apparent specifics. Country doctors ought to record their cases and report through the usual mediums the results of their experiments, in order that they may learn from each other.

In no other disease can experimentation with drugs without reference to physiological action or previous therapeutic applicability be more completely justified than in pneumonia. We are aware that it is the most frequent and fatal of all diseases. We are calmly assured by the writers of text-books that "drugs in no way influence the course of the disease," and "nor that it can neither be aborted or cut short by any means at our command." (Osler.) On the other hand these same writers assure us that it frequently is aborted or cut short by the natural forces of the body, as is witnessed by the number of cases of Larval pneumonia, and by other cases in which the crisis comes as early as the third day. This, our learned writer claims, may happen *in spite of drugging but never on account of it*

Whether this is true or not, time will show. But if all of us would do a little experimenting and report our cases, I believe a specific of considerable efficiency would be discovered.

I am here to set the example by reporting the results of my experiments in the treatment of pneumonia since I graduated three years ago. Every case of pneumonia I have had to treat in those three years I have given creosote. The only case I have lost was an aged woman, in whom the infection was so severe that after the initial chill she did not recover consciousness during the five days of her illness. Many of my cases I saw only once, so efficient was the treatment, and so quickly did they begin to convalesce; others ran a fairly typical course. Some improvement, however, was almost always apparent within a day or two after commencing the use of the drug.

I was first told of this use of creosote by Dr. R. E. Mason, of Charlotte, N. C. With him I saw about five cases, his report of which I will give here.

Case 1.—Age 10. "Broncho pneumonia. Treated for one week on regular treatment with no results, and I had given patient up to die. Temperature 103½, pulse 140, respiration 48; was placed on 3 minutes of Merck's Beechwood Creosote in dr. 1 of Wine Cod Liver Oil every three hours. Results: In 36 hours pulse, temperature and respiration were practically normal. Temperature only 99 degrees."

Case 2.—Age 11. "Broncho pneumonia. Also treated by old method for about one week with poor results. I placed patient on same treatment when temperature was 104, pulse 130, and respiration 50 per minute. In 24 hours the temperature was 99½, pulse 90 and respiration 22.

Case 3.—Age 45. "Lobar pneumonia. I saw this case in less than an hour after the chill. It was treated unsuccessfully for 36 hours with Tr. Veratrum (not Norwoods) Results of this treatment was to cause the following condition: Temperature 102½, pulse 90 and respiration 36. Patient was then placed on 5 minims of creosote in an alcoholic menstruum, and in 24 hours the following symptoms were present: Temperature 99, pulse 85 and respiration 24. The patient was then taken off the treatment and the whole train of symptoms *immediately* returned and as *immediately* disappeared when placed on the creosote treatment the second time. Crisis occurred in this case in 60 hours, or in other words 2½ days, from the inception of the case."

Case 4.—Age 6. "Broncho pneumonia.

When I saw this case the patient had been ill for ten days and I found temperature 104, pulse 150 and respiration 60. I placed the patient on three minims of creosote in Liq. Peptonoids and did not return in 48 hours. On the second visit I found everything so near normal I did not make a third visit. I had another case but have mislaid the report, so I can not give you that one, but will add that I have treated pneumonia this year on the same plan and have not lost a case of pure pneumonia."

"I will call your attention to the fact that it must be given in an alcoholic menstrum and when administered that sweet milk is the best, as it is incorporated in the curd and is slowly dissolved, and in that way does not irritate the stomach so much."

"I have used other creosotes than Mercks Beechwood, but did not get such good results. It usually takes 48 hours for the creosote to get its full action, but it usually shows some effect in 24 hours."

My principal object in reporting these cases is that I may hear the merits of this treatment discussed. If others here have had any experience with this drug in the disease named I will consider my efforts well rewarded if they will give the Society the benefit of their experience with it. But if their experience is such as to make them doubt its efficiency, I wish to ask if they used a reliable Beechwood creosote. Much of the creosote on the market is adulterated with carbolic acid. In nearly all the cases I treated I used Mercks. It may be that Parke, Davis & Co.'s is equally as good.

Incidental Observations on Hydrophobia.*

By David Furman, M. D., Greenville, N. C.

It shall be my endeavor to refresh your minds on this much neglected, though important subject, by calling attention to some well established views concerning this disease; gathered from the rather scanty and scattered literature, as well as to report a case of hydrophobia, with some inferences drawn therefrom.

History.—Records of this most fatal of maladies come to us from the remotest medical history. In an ancient Hindu work, possibly ten thousand years old, appears an account of it. Celsus also describes it, and Aristotle (322 B. C.) gives a clear account of it. The human mind, fond from its first manifestations of the occult, discovered in the mysterious origin, the spectacular and terror-inspiring and horrible symptoms of this disease a favorite theme. The dark ages, revelling in superstition, mythology and witchcraft, attached to this fearsome disease all that wierd and excited fancy could conceive. Strangely, the mind seems loath to abandon the ghost stories of infancy, and the races show the same tendency to cling to the legendary delusions, a legacy from a credulous past.

And now, when vaunted reason is supposed to usurp unquestioned sway, and science demands of her votaries that to the test-tube, the microscope and the principles of broad induction, everything must be submitted that comes within her jurisdiction; there are not a few, and some in our own ranks, who still adhere, with regard to this disease at least, to some of these long cherished myths.

Prominent among these delusions is the idea that rabies is of spontaneous origin; that it belongs to a certain season of the year; that it is characterized always by snapping and foaming at the mouth; that the rabid dog "can not cross water" and always manifests a dread of it, etc. And I regret to record that in my State, and I dare say in North Carolina, also, these and a few otherwise fairly intelligent members of our profession, who to this day jealously guard and keep, and in all seriousness apply to misguided credulity at least one charm, one fetich, a heritage about which superstition has placed a halo and ignorance still worships, the mad stone. While intelligence smiles at such simple and apparently innocent faith, yet such confidence is fraught with great danger in that those trusting to it often forfeit their lives by failing to seek the only remedy.

With eyes closed to the light there are yet some who essay even to question the existence of such a disease. The reasoning on which their uncertainty is based would as well cause them to doubt the existence of Asiatic cholera or the Egyptian pyramids. To the latter class belonged many able men a few centuries ago, when the knowledge of the subject was in a chaotic state; for the rabies prevailed in nearly every country in the world. Little effort at systematic study of it was attempted until the early part of the last century. At that time Zinke, Rey, Renalt and Magendie did valuable work; to be followed by the great work of Pasteur. Of him Prof. Chas. Richet, while recounting the remarkable achievements and great good resulting to the whole world, said, among other things, "That the apogee of the glory of Pasteur was the discovery of the treatment of hydrophobia."

As the case that came into my hands presented the classic symptoms of the disease, and was remarkable for its protracted period of incubation, I will read the report made at the time to the Greenville County Medi-

*Read before the North Carolina Medical Society at Charlotte, N. C.

cal Society, and will then discuss the features relating to the period of incubation.

On May 4th, 1905, with Dr. Giles I saw Vesta Hetherly, aged four years. She had the following clinical history: On April 30th, 1905, she complained of slight malaise, though she was able to go about the house. At night she was rather restless, and on the following morning nervousness was more pronounced; was feverish and inclined to lie down, and in the evening, in spite of great thirst, manifested difficulty in swallowing. On the following morning she was seen by Dr. Giles, who found her very nervous; becoming much more so on any attempt to swallow liquids; and later in the day this symptom made it almost impossible to administer medicines. At this time her temperature was 101. At nine a. m. May 4th I saw her and noted the following symptoms: Facies—Expression pinched and anxious, picking at nose, across the center of which was a large hyperaemic scar (this I learned had been red for the last five or six days); from the left nostril exuded a frothy muco-purulent discharge; conjunctivae slightly congested; slight discrepancy of pupils, which responded poorly to light; there was no rigidity of the spine, jaws or arms. Hyperaesthesia marked. Axillary temperature, taken with difficulty, was 101½ F., pulse 120. On being asked if she was thirsty she replied in the affirmative, became agitated and said "but I don't want to drink now."

When liquid was presented the agitation increased to a rigor, and when the cup was put to her lips with a fearful effort her mouth was thrown wide open, then with a sudden spasmodic movement the edge was convulsively caught between the teeth and as the water entered her mouth a violent reflex spasm of the larynx and a general convulsion, interrupted and jerky, occurred; with a gurgling, choking noise the liquid, with a quantity of frothy mucous, was ejected from the mouth during and immediately after the convulsion; after which she gradually returned to consciousness to remain so until liquid was again presented. Even when she was just regaining consciousness, the presence of liquid provoked immediately a convulsion similar to what has just been described. The duration of each convulsion was from one to two minutes. In the afternoon of the same day I saw her again. By this time the psychic disturbance was much increased; the intervals of lucidity were shorter, (yet, even at this time she was sufficiently intelligent to apologize to her mother for striking her, which she did as each convulsion passed off), and not only liquids but flashes of light, hidden noises or movements were sufficient to provoke laryngeal spasm, dyspnoea, and copious discharges of frothy mucus from the mouth with violent convulsions. Temperature 104, pulse 140. Death followed a few hours later, before the paralytic stage, as the direct result of a stupid attempt of another to control the convulsions by a hot bath. Owing to the objection of the parents an autopsy was denied.

The scar referred to resulted from the bite of a dog, which wandered from a neighbor's house, bit the child without provocation and disappeared. This happened on Jan. 1st, 1904, 17 months prior to the development of the first symptom. *On the period of incubation.* So definite is the duration of the incubation period that it is of positive diagnostic value in most infections, as for instance in small pox, scarlet fever, gonorrhoea, syphilis, pyaemia, etc., as well as in the inflammations arising from the stings of insects and the bites of serpents. But with rabies the period of incubation is very variable; it not only varies with different species, but with different individuals of the same species. In this connection Pasteur said "the length of this period depended not on the virulence, but on the quantity of the virus absorbed," and he estimated the period in man as from 40 to 60 days.

Anders says in the young the period is shorter. Bradford, in the London Lancet, March 3rd, 1900, says "the period of incubation is from 20 to 60 days, rare after 3 months, still more rare after 6 months; in cattle 1 to 3 months; in sheep from 15 to 30 days; in the horse from 15 to 60 days." Prof. Horsley places the incubation of hydrophobia "at not less than 6 months, but it may last 2 years." Abba states that in the dog it has been proven to last 246 days.

Dr. Salmon, Chief of the United States Bureau of Animal Industry, 1900, says, "In rare cases it has been reported on good authority that a year or even 14 months have elapsed between the time when the animal was bitten and the development of the disease; the majority of cases developing in from 3 to 7 weeks."

Penzoldt saw a case in man when the incubation period was 11 days, and says concerning the maximum period "where more than a year elapses between the inoculation and the development of symptoms they must be accepted with caution." He also says "with children the period is shorter, especially when it results from injuries to bared areas."

From the above authorities (and they accord with most observers), with the exception of Prof. Horsley, they limit the period of incubation from 11 days to 14 months.

In my case the age of the patient, the development and termination of the case preclude lyssophobia. Inquiry developed the fact that the little girl was an only child; that she was constantly with her mother; that until very recently they had lived in an isolated place in the mountains; that they possessed neither dogs nor cats, nor had she at any time been injured by any animal. In addition to this history, which we had no reason to doubt, the fact that the pale and almost forgotten scar became suddenly markedly hyperaemic, prior to the development of the more grave symptoms, leads me to believe that in assuming that the period of incubation in this case was 17 months is not unreasonable. And if this is true the case tends to negative the position that the age of the patient and the locality of the bite are especially important factors in the duration of the incubation period.

Types of the disease and the principal sources of infection. There are two more or less distinct types of the disease; the furious or pyschic form, ending in the paralytic, if death does not occur before that stage is reached; and the dumb or paralytic type from the beginning. Each terminating in death before the eighth day. Anders says "that in rodents (dumb rabies) or silent madness is the rule." (With few exceptions it is this form that appears in rabbits where subdural injections are made and in from 6 to 15 days from the inoculation, when the most active cords are used). It is frequent in the herbivora; less so in the carnivora, where the former type is more common. No animal possesses natural immunity to this disease. However, since ninety per cent. of all cases of hydrophobia result from the bite of the dog it is incumbent on us, in order to fulfill our duty to those who look to us in time of distress, to familiarize ourselves with the evidences of the disease in that animal. Rabies is characterized 1st, by a period of depression; 2nd, by a period of restlessness or irritability; 3rd, by a period of paralysis. During the first period the dog is anxious and restless; often hides from his master; obeys sullenly; changes position frequently; may or may not lose appetite, although this soon fails. He may show undue affection, licking everything in sight or bite everything in reach or swallow all sorts of foreign bodies. The second period of irritability persists three or four days; during this time he is spasmodically mad and has an irresistable tendency to wander. The third or paralytic stage is marked by a hanging jaw from which saliva drops, by glaring eyes, dilated pupils, and a staggering gait, and finally by complete paralysis. In dumb rabies the features of the second stage may be entirely absent.

In the more advanced stages of either form the bark is changed and dogs evince no evidence of pain, nor do they abandon a purpose on being injured. Reports from many veterinarians show that dogs afflicted with the latter form are often brought to them for treatment under the supposition that they are suffering with a bone in the throat.

Dr. Salmon says difficulty in swallowing, or after an absence, if a dog returns dirty, exhausted and miserable he should be put under lock and key. Also, "Beware of the dog that becomes listless and hides away, is prowling in habit or walks about with his head down like a bear." And Dr. Roswell Park says that the popular belief that the rabid dog abhors water has long since been proven erroneous. On the other hand he is thirsty and is sometimes very fond of water, even thrusting his head into it, though he may have difficulty in swallowing or a convulsion from so doing.

Prevalence of the disease and measures to repress it.—With the exception of Lapland, Australia and the Islands of the Pacific, Sweden and England, rabies prevail in nearly every country in the world. Where it does not exist the freedom from it is due to the fact either that the disease has never been introduced, or it is a testimony to the effectiveness of repressive measures.

With regard to the possibility of getting rid of the disease experience in the last named places is of great interest. In Sweeden the disease existed to such an alarming extent that strenuous measures were adopted and the disease disappeared. While desiring not to burden you with statistics, yet with regard to the history of rabies in England figures speak so eloquently that I shall briefly present them.

Previous to 1885 hydrophobia had increased to an alarming extent. In London alone no fewer than 27 deaths of human beings were reported as due to the bites of rabid dogs. A muzzle order was enforced, and at the end of 1886 not a death was recorded.

Unfortunately, the order prescribing the use of the muzzle was rescinded and in a few months a case of hydrophobia occurred in South London to be followed by others, and in 1887 ten deaths were registered.

In July of that year the muzzle order was again issued and stringently carried out and rabies and hydrophobia once more disappeared. In the whole of Great Britain the result from enforcing the muzzle order was phenomenal, both in the opposition encountered by the authorities and in the successful eradication of the disease. The number of rabid dogs officially reported was in 1887, 217; in 1888, 160; in 1889, 312.

In the last mentioned year muzzling was adopted and the number of cases fell to 129 in 1890; 79 in 1891, and 38 in 1892. Then, owing to persistent opposition, muzzling was stopped, and the effect of the withdrawal of this measure was at once noticed in the increase of rabies. In 1893 there were 93 cases; in 1894, 248; and in 1895, 672. At this point, owing to public alarm, muzzling was again enforced, reducing the number of cases in 1896 to 438; in 1897 to 151; in 1898 to 17; in 1899 to 9. As no case was discovered from November, 1899, to March, 1900, it was believed that the disease has been extinguished in Great Britain.

Since that time rigid quarantine has been enforced against all dogs imported. Reports gathered by the Bureau of Animal Industry from the veterinary colleges of the United States show that rabies prevail in almost every State and territory of the country. The vital statistics of the census 1880 to 1890 show in the United States 143 deaths from hydrophobia in man, and from 1890 to 1899 application made to the health officers of the principal cities of the United States showed that during the nine years from reliable sources there were in 73 cities 230 deaths from hydrophobia, after eliminating the cases of doubtful diagnosis. And now it is about 50 per annum, in spite of the great number who would swell that list were it not for antirabic vaccinations. It is plain, therefore, that the disease is greatly on the increase in the United States.

Of the pathology of the disease I shall only say a word. While a bacillus has been described, doubt remains as to its causal relations. In the cerebro-spinal and sympathetic ganglia are certain recognized changes, consisting in atrophy and destruction brought about by new formed cells derived from the capsule which appears between the cell body and its endothelial capsule. The new formed cells increase in numbers, invade the protoplasm and finally completely occupy the capsule (as seen in illustration). These, however, are later changes not seen in first few days.

Treatment.—Prior to the brilliant advance made by Pasteur in prophylaxis the treatment consisted in local applications generally to be followed by measures to soothe the hopeless victim's last dreadful hours. And now, local treatment is by no means insignificant. On this point Penzoldt says "the value of cauterization on animals has taught that it only succeeds with certainty if the caustic is applied in the first few minutes after infection has taken place; that with every hour lost results become uncertain and disappear entirely after a day."

In case of a doubtful wound permit free bleeding; wash quickly with one per cent. Bichlor. Sol. or other potent antiseptic; apply actual or thermo cautery or caustic potash or fuming nitric acid, "do not use nit. Silver." After which dress wound antiseptically and send patient along with head and neck or brain and medulla of the animal, if dead, to have Pasteur treatment administered. If the dog can be taken alive it should be kept under observation for at least a week as "the saliva of a rabid animal may be virulent three days before the appearance of any symptoms of the disease" and "the lesions which allow a diagnosis to be made within twenty-four hours may not be present in the early part of the disease."

In a letter Dr. George Gibier Ramand, of the New York Pasteur Institute in reply to an inquiry says, "I should say up to date about 200,000 persons have undergone Pasteur treatment with a mortality varying from 0.20 to 0.70%." Even with this small mortality many cases are sent too late and should not be instanced as failures of the treatment.

This is especially striking when we remember that the mortality without treatment is variously estimated from 20 to 90%, according to the extent and locality of the inoculation. Some statistics from Georgia, fairly representing the conditions elsewhere, may be of interest.

In 1900, just prior to the establishment of the Pasteur Institute, there were eleven deaths in that State form hydrophobia; the next year there were five, in 1902, 4; and in 1904, 3..

That Institute has treated 410 cases with 2 deaths and one of them died before immunity could be established. The last 118 cases have been treated without a single death, while of fifty-nine not treated fifteen died. "This Institution has been the means of saving at least thirty lives in Georgia." The experience in other Institutes harmonizes with that of the Georgia Institute, in all of which the treatment is essentially the same. During nearly sixteen years, since its establishment, the New York Pasteur Institute has given the preventative treatment to 1608 persons and from Jan. 1902 to December 1905, 482 cases have been treated with one death or 0.20%.

In a report of the New York Pasteur Institute Dr. Ramand says, touching the danger of the treatment, "It may briefly be said that the antirabic vaccinations may cause slight nervous disturbances in neurasthenic and hysterical persons; these disturbances, however, have never been serious and are extremely rare.

While your patience is exhausted by my attempt to compass so much of this import-

ant subject, yet I feel that I must detain you a little longer.

Inasmuch as it is rather rare that the rabid dog, until far advanced in the disease, bites his own master, there is comparatively little danger from high-bred and valuable dogs, since they are constantly under the surveillance of intelligent owners who know their habits and promptly recognize in them any departure from the normal, and who also know that a dog bitten by a suspicious animal should be killed or closely confined for many months; but in the South with our negro population around few of whose abodes do not exist from one to a dozen neglected canine mongrels, maintaining themselves by wandering great distances for food, conditions are rife for a fearful spread of the disease.

We boast of our quarantine system, and point with just pride to its achievements in excluding from our borders leprosy, bubonic plague, etc., and of its efficiency in managing typhus and yellow fever when they occasionally gain entrance to our coast cities, yet we have in our midst a preventable disease, which has cost hundreds of lives, which constantly menaces more especially the children. And what is being done to arrest it? Is not our profession, the sanitary guardians of the commonwealth, falling short of the demands of modern civilization, and of the confidence and trust imposed in it by the respective communities, and of its duty to the State by its inaction in this matter? Are we not, by our silence, giving consent to this almost criminal disregard and indifference to a needless sacrifice of human life?

I was glad to hear Dr. Murphy say that the Drs. of North Carolina can do, in politics, anything. If this is true then we as physicians are entirely responsible for present conditions.

Tuberculosis.*

By K. M. Ferguson, M. D., Southern Pines, N. C.

"The tubercle bacillus is a micro-organism which according to all previous experiences requires for its growth and development a temperature approximately that of the blood, and that it is unable to develop or multiply for lack of a suitable nutritive medium and favorable temperature externally to the animal body, and wherever we meet tubercle bacilli in nature our knowledge of their characteristics prompts us to refer them to some tuberculous individual or animal in point of origin." (Cornet).

If the human or animal body are the sources of propagation, it concerns us especially to know how and under what conditions and circumstances these bacilli are so given off, as to continue their work in the dissemination of this disease. When Koch announced his discovery of the tubercle bacillus in 1882, he taught that bovine tuberculosis and human tuberculosis were one and the same. In 1901, however, as the result of a more extended experiment, he concluded that the bacilli of bovine tuberculosis were not capable of producing ordinary tuberculosis in the human being, and that he did not believe that either meat or milk from tuberculous cattle was dangerous to man. Trudeau and many other investigators have shown that the tubercle bacillius in point of pathogenicity is influenced by the host in which it is making its sojourn and while this question in all of its relations has probably not been settled, yet the preponderence of evidence is against the doctrine of the duality of tuberculosis as taught by Koch, and the two forms of the disease are in a sense interchangeable. The theory of the ubiquity of the tubercle bacillus, to the immeasureable comfort of us all, has been justly discredited.

Before the character and peculiarities of the germ were so well understood as now it was believed by many scientists that the breath of the consumptive was loaded with bacilli, which were sown broadcast by the wind. The law of gravitation was forgotten, and prophylaxis was looked upon as impossible, but the facts are to the contrary, and there is probably no other infectious disease so absolutely under our control in point of limitation as is tuberculosis. Predisposition is an elastic theory, that fits every case in which we are unable to trace the source of infection, and is as old as the teachings of Hippocrates. Some one has compared the human organism in this regard to the parable of the sower, "some seed fell upon good ground, some in stony places, others by the wayside, etc." During the days of the theory of the ubiquity of the tubercle bacilli, the doctrine of predisposition had of necessity to be maintained, to explain the immunity of many people against the supposedly universal dissemination of the germ. The question of predisposition is a broad one, and when accepted in the sense of a special predilection on the part of the organism will often prove lacking in good reasons for confirmation. In a given case, the question of predisposition, and the question in the degree of exposure to infection is one difficult to separate and estimate. "There is both a quantitative and qualitative degree of exposure to infection, which has often doubtless been accepted in the sense of an in-

*Read before the North Carolina Medical Society, Charlotte, N. C.

creased or diminished individual susceptibility." (Cornet).

If predisposition is prominent as a causative factor in tuberculosis, it would not be much of a stretch of the imagination to conclude that the entire lung in a victim of tuberculosis caused by predisposition would show a sameness in point of surrender to the disease, but we know that it is often the case that in the same lung one tuberculous focus heals, while another increases in size; in one cavity a process of cicatrization is going on, in the other rapid disorganization of lung tissue, and the same reasoning applies to any of the other elements of the organism to which predisposition might be assigned. When predisposition is regarded as important in the creation of a given case of tuberculosis, as exposure to a source of infection, the position is certainly unsupported by clinical facts. Impaired innervation, however, from weakened parents "grades variations in the point of energy and resistance with which different cells oppose the entrance of bacilli," (Cornet) just as catarrhal conditions can weaken and render infection easier, because the cell energy has been impaired, and is unequal to the task of throwing off the germ which happened to be inspired, in this sense predisposition does exist as a causative factor in tuberculosis. The great sovereign cause, however, established by clinical facts in the dissemination of this disease, is the tubercle bacilli given off from dried sputum, and when the masses have been imbued with this idea a valuable step in point of prophylaxis will have been taken. It is estimated that a single tuberculous individual in the stage of cavity formation can produce daily 8,200 millions of bacilli, and if this is correct it is apparent that a consumptive, if he permits his sputum to dry, is capable of infecting a great many people. The danger of infection, however, from this source is not so great as the earlier conception of it, since it has been shown by investigators that the "tubercle bacillus as an individual entity probably has only a very brief existence in the body, and that the majority of bacilli in sputum and in cavities are already dead, though indistinguishable microscopically from the living forms" (Cornet), but as pleasing as the acceptance of this theory may be, it is not to be forgotten that some are always alive, and capable of propagating their kind, if they find lodgment in suitable soil.

"Tubercle bacilli perish within from a few minutes to hours when exposed directly to sunlight, and within a few days when exposed to diffuse sunlight" (Cornet), and if this be true, a different condition would obtain in a dwelling where sputum had been allowed to dry, because the sun and atmosphere would play a far less active role, and clinical facts bear out the theory that in dark places and in dwellings shut off from light are found the special breeding places of tuberculosis. "The vitality of the tubercle bacilli, as settled by animal experimentation, shows that after about six months large quantities of expectorated sputum show not a single germ capable of further development." (Cornet).

With the acceptation of this theory our fears of premises where tuberculous subjects resided a year or two ago are not well founded.

In a recent visit to St. Joseph's Hospital in New York, where more than four hundred consumptives are cared for, I inquired in how many instances had the attendants been infected, and the answer was not once in all the history of the hospital. The personality of the consumptive means much, and the one who is careful with his sputum for both sanitary and aesthetic reasons is practically harmless.

An early diagnosis is of prime importance in tuberculosis, and it too often happens, especially where the supposed hereditary predisposition does not exist, that we are slow to accept a fact so disagreeable as a diagnosis of this disease. While tuberculosis is in itself localized there is an early constitutional derangement expressed in a slight daily rise of temperature, as a result of the absorption of proteins and destructive metabolic products, this experience varying, of course, with the number and size of the diseased process, as well as idiosyncrasy.

"The absorptive capacity of the circulatory channels seems to exercise a wide range of variability at different ages, the young absorb more freely than the aged, hence the fact that children compared with older people show much more pronounced constitutional symptoms," (Cornet). Not only is this true in tuberculosis, but in many other diseases, and must be due to either a greater absorptive capacity, or to a given amount of poison in a smaller quantity of blood.

In paroxysmal exacerbations of temperature from malarial poisoning, we know it to be due to a blood parasite existing and continuing its cycle of existence in the red blood corpuscle of the infected individual. Several varieties exist, each of which is associated with a characteristic type of fever, as the parasite of a tertian fever, the parasite of quartan fever, etc. They accomplish their cycle of development within a given number of hours, and with this comes the malarial paroxysm conforming with absolute regularity to the variety of the parasite; here we know, as absolutely as we can

know anything, the cause of the daily or every other day exacerbation of fever, and we know that anemia must follow as a consequence, because the red blood corpuscles are destroyed as often as they become the host of the parasite. In tuberculosis we have daily exacerbation of temperature, especially in the incipient stage of tuberculosis, that conforms ordinarily to the same regularity as a temperature produced by malaria, and so invariably true is this that it is regarded as one of the most valuable symptoms in an early diagnosis. This being a fact, this effect must rest upon some cause. The injection of tuberculin, which to a certain extent is analogous to the direct absorption of the metabolic products of the tubercle bacilli, if practiced in the morning hours will be followed by a rise in temperature in the evening or night hours. There must be in effect something in common between the natural absorption of bacterial toxins and the injection of tuberculin, and if it requires several hours for the tuberculin to effect a rise in temperature, it would naturally require a similar length of time for a similar agent taken into the circulation by natural absorption to produce a similar effect.

If it can be assumed that the absorption of bacterial toxins goes on continuously, it is not illogical to further assume that "during the fever period there is a dilatation of the internal vessels, including those distributed through the lungs, and a corresponding decrease of pressure in the pulmonary veins and arteries, which brings, for a time, upon the part of the blood, a decreased capacity for the absorption of foreign material," (Cornet), and during this period of diminished absorption, excretion goes on naturally and necessarily to the extent of eliminating largely the bacterial toxins from the blood, with the effect, of course, that the dilatant action upon the vessels of the internal viscera after a time is arrested, and blood pressure rises. As a consequence absorption is resumed in a greater measure, until the entire procedure repeats itself. We know that activity favors absorption, and that rest reduces it. During the hours of sleep absorption is naturally diminished; the return of the waking hours brings again a period of activity, in a measure greater or less; the morning cough results in an increased intrathoracic pressure, and with the ordinary activity of the day comes again increased absorption of the poisons, followed, as a result, with the characteristic fever. (This, of course, does not apply to septic fever or the fibrous forms, which may run their course practically without fever).

Tuberculosis is sharply localized disease, making its inroads upon mankind through the secretions and excretions of tuberculous individuals, and in a lesser measure through the meat and milk of infected animals, and this knowledge is a sufficient warrant upon our part, to lead to certain definite and imperative conditions, first of all define its limitations by destroying the opportunity of distributing infectious material. Every consumptive, not only for his consideration for others, but from his own sense of right, and his own interest should dispose of his sputum while it is in a moist state, and much will be done to limit the infectious circle which it creates. Prophylaxis is getting on a firmer basis, it has done much and will do more to reduce the frequency of tuberculosis.

The victim of tuberculosis, though a a maimed bark on a rough sea is not necessarily predestined to perish as proven by clinical facts.

The therapy of pulmonary phthisis, while embracing no specific, yet energetic and skilful treatment is not without its reward. Recovery comes at the cost of invincible perseverence; the will power and the endurance of the patient are subjected to a test that invokes the best efforts of a strong and inflexible personality. This is pre-eminently the disease requiring attention to all the details, no single element of phthisiotherapy is effective alone, "the satisfaction of all the physiological and hygienic demands of the organism from the least to the greatest must be met." (Cornet).

Tuberculin has been credited by unquestionable authority with merit in the treatment of tuberculosis, and clinical facts seem to justify the opinion that it does in reality contain a curative substance, which by chance or otherwise, has met a suited applicability in some cases of phthisis. Landerer is credited with the idea of turning tuberculous foci into solid cicatrices by means of inflammation produced by injections of cinnamic acid, and credits a number of cures to this process.

Grant that this is true, grant that tuberculin might exercise a curative influence over a given tuberculous focus, and still a common barrier stands in the way of their common use in a general treatment of this disease, for the reason that a stimulous or other agent, designed for a given tuberculous centre, used in a given case, where the different foci are in different stages of advancement could not have a common applicability to these various centers, and for this reason either of these agents might not only be incapable of good, but productive of great harm by the permeation of the focus and the dissemination of the bacilli in those centers to which they were unsuited.

I have seen cases of tuberculosis that had advanced to the stage of cavity formation, yet existing in a state of low activity as evidenced by a normal temperature, and a gain in weight and strength, thrown into a state of high activity by tuberculin injections, followed by rapid advancement and death.

If a state of inactivity results in the absorption by the blood of a smaller amount of the metabolic products of the tubercle bacilli, as is evidenced by a lowering of the temperature when this state is maintained, certainly the principle of the rest cure is well founded.

Emaciation is one of the earliest as well as one of the most apparent results of tuberculosis, and to stay this process, and make good even that which has already been lost by a heightened nutrition is naturally one of the first indications to be met.

Brehmer inaugurated the open air treatment forty years ago, and from the clinical facts attesting its merit, it has grown in popular favor down to the present day.

The three great cardinal principles then in the treatment of tuberculosis as regarded by the medical world in the light of our present knowledge of the disease is, rest, pure air, and suitable nutrition.

Dr. Trudeau, to whom the world owes much for what he has accomplished along this line, says in speaking of the Adirondack Sanitarium "that its object is to offer to persons in the first stage of tuberculosis the benefits to be derived from a change of climate, a well regulated out-of-door life amidst hygienic surroundings, a nourishing diet, and the latest and most approved methods of medical treatment. The treatment is chiefly hygienic, combined with simple medication for symptoms as they may arise. Experience has shown that nowhere can the necessary daily regulations of the patient's life and habits be so successfully carried out as in a sanitarium, and that the most favorable results in combatting this disease have been attained in institutions devoted to this special purpose. There is no doubt in the history of most cases of consumption a time when restoration to health might take place if the patient could for a while give up his occupation and cares and obtain a change of climate and surroundings." Dr. Stockdale in the White Haven Sanitarium for consumptives near Philadelphia says "the secret of our success is our method of feeding and the careful, individual attention the patient receives, and our rigid rules, to which there is no unbending, and to which all must adhere or leave. The patients soon fall into this routine when they realize it must be done, and after the first few days find it far from a hardship." The annual death rate in North Carolina from tuberculosis is between four and five thousand. Private sanitariums for the treatment of tuberculosis can only be a benediction to those who are so situated from the standpoint of ability to pay as to avail themselves of the respective merits of these institutions. Other States are recognizing their obligation to those less favored in this regard. Has the time come for the medical profession of North Carolina to ask the State for an appropriation to build and in part, at least, maintain a sanitarium for the isolation and treatment of the tubercular cases annually occurring within our borders?

Clinical Reports: (a) Umbilical Fistulae; (b) Two Caesarean Sections.*

By W. H. Dixon, M. D., Edward, N. C.

The cases which I wish to report are of interest both from a medical and surgical standpoint, and besides both are rare conditions. The maladies I have reference to are umbilical, fistulae and caesarian section. First as to umbilical fistulae.

Ida B., white, age 12; has had the usual diseases incident to childhood, previous health not good. Was called in to see this patient on my way to see another patient; went in and found child suffering with malarial fever of rather severe type; gave antimalarial treatment and went away; saw her again next day and found a little improvement. I saw her every day until fever had subsided, which was on the tenth day. Two or three days previous to discontinuing my visits I noticed considerable tympanites present, so much that it caused her great discomfort.

I gave her turpentine emulsions and salol. This soon relieved the distension to a great degree, the tympanites would, however, return as soon as turpentine was discontinued.

Just as soon as tympanites set up a rapid emaciation began. Of course she was very much reduced in flesh from the effects of fever. Her strength was kept up by judicsous administration of predigested foods and itimulants.

Her father called me up over the telephone six days after I had discontinued my visits and told me his child had a "hole" to come in her side. I could not understand from him where the "hole" he had reference to had formed, and thought possibly it was a fistula that had formed from the thoracic cavity.

I went to see her in the afternoon and found an umbilical fistula discharging freely a serous fluid mixed with fecal mat-

*Read before the North Carolina Medical Society at Charlotte, N. C.

ter. The odor was of course very disagreeable. On making an examination of the abdomen I found it moderately distended, and by making pressure above and to the left of the umbilicus the discharge could be very much increased, the fecal matter would be in excess of the serous, and just after making pressure the discharge would stop for quite a while, and, by the way, there was no pain whatever from pressure.

At frequent intervals the discharge would completely stop. When this would occur the abdomen would rapidly distend and pain would set in ond would only be relieved when the discharge would return. The fistulae continued to discharge until death of the child occurred, which happened in about ten days after it began.

The cause of this fistula I can't say, but will give one of three reasons or theories which I think would cause such a condition, and one of them was the cause in this case.

Fistulae, umbilical in character, may be produced by the action of intestinal parasites, or may be due to ulcerations of Peyers patches, as found in typhoid fever, or due to a lack of resistance in the intestinal wall as a result of cell death or a failure to replace itself after having been destroyed.

First, as to the worm theory there are well authenticated cases where worms have perforated healthy intestine and have formed umbilical abscesses. As to this particular case I do not think this theory would apply, as we had no abscess formation; there was nothing characteristic about the discharge to indicate an abscess. I saw the patient two or three hours after the fistula had formed and the discharge then was serous in character with small particles of fecal matter mixed with it.

The fistula was the first thing noticeable, not even a tumor or any elevation to indicate that an opening was going to form. There were no worms in discharge at any time, and besides I had given an anthelmintic a few days previous to formation of fistula, thinking that the tympanitis might be due to presence of worms. As to the ulceration of Peyer's patches that are found in typhoid fever, I do not think this could have been the cause of the fistula from the fact that the child had no fever for ten days previous to the discovery of the fistula. There was an elevation of temperature, however, three or four days before she died.

The cause I attribute to the formation of the fistula was due to a failure or faulty metabolism of the cellular tissue in the make up of the intestine.

I believe that this condition was brought about by the weakened condition of the heart and resulted in poor circulation in the system, and especially in the intestine, and in this way the destructive condition was greater than the constructive, hence a weakening in the intestinal wall seeking to find the place of least resistance, which happened to be the umbilicus.

Treatment.—Open up abdomen and close the opening in the intestine after the usual methods. As to the abdominal wound I think best to partially close and put in drainage.

I thought to operate in this case but her condition was so bad that she could not possibly recover, besides I do not think she would recover from the effects of the anaesthesia; I also believe that metabolism was so faulty that repair would not have taken place had I operated. To me this was a most interesting case.

The second condition is that demanding Caesarian operation or Caesarian section. In a practice covering a period of eight years I have had the opportunity of seeing two patients that demanded it, or rather the operation was indicated. The operation is an old one and fortunately a rare one; some of the most experienced operators do not see more than twenty or twenty-five cases in a life time. Caesarian section was in practice in certain primitive tribes and nations in remote antiquity. Until within recent years the operation was avoided except in women that were almost dead, and then only operated upon to save the life of the child.

With the improvement in abdominal surgery and better asepsis the mortality has been reduced very much, almost as low as in a majority of other major operations.

The first case in which the operation was performed on a living woman was in the year of 1491. It is only since 1890 that the operation has come to take its place as a well recognized surgical procedure, and is indicated where delivery is impossible by natural means and we wish to deliver a living child.

The operation in brief is performed by making a vertical incision six or seven inches long in the mid-line of abdomen over the pregnant uterus; when exposed draw into wound, then incise from above downward and then rapidly remove child and placenta, after which uterus is carefully closed by suturing. Some operators use three layers of sutures, and some use only through and through sutures and carefully approximate the edges of uterus, after which you let uterus fall back into the abdominal cavity. The abdominal wound is brought together in the usual way, by suturing and dressings applied.

I have seen two subjects that required

Caesarian section, and will present a report of them as I saw them.

Cass 1.—Multipara, age 40; previous health fairly good; had two instrumental deliveries and one normal delivery; any further history I have not been able to obtain. I was called to see this case with Dr. H. M. Bonner. He informed me that the woman had been in labor about forty-eight hours before I saw her; at the time I first saw her, the pains were exceedingly strong and seem to be almost unbearable, and besides the woman was nearly exhausted.

I made an examination and found several growths attached to the walls of vagina extending from uterus to vulva, the size varying from that of a bird's egg to that of a hen's egg. On further examination I found cervix as rigid and as hard as cartilage and extended up the uterus for a distance of an inch and a half. Dr. Bonner had tried all of the methods of dilation on this patient before I arrived, and as soon as I could get myself in readiness I tried all of the methods available, but none of them would make perceptible effect on the cervix.

It could have been possible for us to incise the cervix in several places up through the cartilaginous hardness and effected dilatation and then remove the growths in the vagina.

Taking in consideration the nearly exhausted condition of the woman and the possibility of saving the life of the child we thought the best chance for both was caesarian section.

We rendered the field of operation surgically clean; placing the woman under anaesthesia by chloroform we made an incision from the umbilicus nearly to the pubic bone, cutting through the skin, muscle, etc., then we lifted the pregnant uterus into wound, then made an incision from the fundus to within an inch or two of the cervix, exposing the child we ligated the cord and cut it in the usual way; afterwards we removed the placenta, blood clots and membranes, then closed the uterus with three tiers of sutures, then let it drop back in its usual place, then the abdominal wound was closed by three tiers of sutures, bandages applied and drainage placed in vagina.

I did not see the patient again. Dr. Bonner told me later that the woman developed enormous tympanites and died on the third day. The child lived to be six months old and died; by the way this child did not have any metacarpal bones on one hand and the digits were attached to the ulna and radius, otherwise the child was perfectly formed.

Case 2.—Multipara, age 18, weight 140; woman specimen of health. The first child was delivered without any trouble whatever; the pelvis was normal in size.

I was called to see this patient about four o'clock in the morning; made a vaginal examination, found the "bag of waters" had ruptured, and also found presenting one foot and leg; also one hand and arm and part of shoulder. The uterus was in a state of tonic contraction with increasing muscular contraction.

I tried to push shoulder and hand up and bring foot further down. I failed in this, however, so I tried to force the foot and shoulder up, hoping to bring the head down and have it engaged. I failed in this also; I could not move it in any way.

I called in my friend, Dr. Bonner, to see the case with me. He tried, as I had already done, to reduce the different parts of the child, but failed to move it any way.

We placed her under anaesthesia and tried the usual methods of reducing the presenting parts, but met with the same bad results as before.

We were discussing the advisability of mutilating the child or doing a coeliotomy. During this time she was having most violent pains, and in the meantime she was under the influence of chloroform. I made another examination preparatory to removal of child by mutilation, as we had decided that was the best method. There were no movements of the child nor any fetal heart sounds, so we concluded that it was dead.

On my subsequent examination, however, I did not find any of the presenting parts and so informed Dr. Bonner; while we were discussing the best way to get out of our trouble the lower left segment of the uterus and upper margin of vagina had ruptured and let the fetus and placenta into the abdominal cavity. Instead of getting out of trouble we were getting in it.

There was only one course to pursue now, and that was to do what we were trying to avoid. We placed her completely under the anaesthesia and gave this part of the work over to an old negro woman that is always present on such occasions. We quickly rendered the field of operation surgically clean and proceeded to operate. On opening the abdominal cavity we removed child, placenta and clots, after which we repaired the rent in the vagina and uterus by continuous suturing, then replaced the uterus and closed the abdominal wound by interrupted sutures, using three tiers for this, one each for skin, muscle and peritoneum.

The abdominal wound healed very nicely. In ten days I removed the stitches. We did not have such good results with the wound in vagina and uterus, for we had considerable quantities of pus to form. I began the use of hot bi-chloride douches twice daily and suppuration soon ceased,

and in six weeks the woman was able to be up and taking moderate exercise.

This woman has been pregnant three times since I operated on her the first time. She aborted about the third month. There was nothing unusual about this. The second pregnancy occurred about the fifth month, and did not see her until the second day and found her flowing fearfully.

On raising up in bed she would faint, and complained with severe pain in region of uterus. The third pregnancy was terminated about the sixth month.

I don't believe this woman will ever have another child to term, as I do not believe the uterus will dilate sufficiently to allow the fetus to reach maturity.

The point I wish to make in reporting these cases of caesarian section is that some of them can be avoided if we could educate our patients to let these ignorant mid-wives alone. In my opinion if I had been called when this last case was taken in labor I think the many presenting parts could have been prevented. I could have produced version and the woman could have been delivered in the normal way. On the other hand this old woman will sit around and assure the patient she is getting along alright, and tell her to bear down until it is too late, then they send for the doctor, and sometimes find such as I found in this case, which could have been avoided had the doctor been called in time.

Treatment of Acute Articular Rheumatism.*

By W. H. Anderson, M. D., Wilson, N. C.

The importance of this subject is due, not so much to the inflammatory condition, known as acute articular rheumatism, but to the deleterious after effects on the heart. Acute articular rheumatism is invariably given as the most important etiological factor in the production of valvular heart lesions, especially in the young who might otherwise escape. So far there is no satisfactory treatment by which heart complications can be prevented unless it is prophylactic measures, which are without doubt our greatest safeguard. There can be no perfectly rational treatment for acute rheumatism until its etiology has been established. At present it is most generally believed to be a germ disease, the specific bacillus not having as yet been isolated. There are others, however, who still believe it to be due to non-neutralized acid products, the result of faulty metabolism, especially of proteids. The treatment which follows is based on the belief that both of the foregoing are etiological factors; that a condition of hyperacidity furnishes the most suitable medium for the growth and proliferation of the germ.

Prophylaxis, which may be termed the *piece de resistance* of this paper, since to prevent it is to exclude a large number of heart cases, suggests itself only in those who through heredity are supposed to have the rheumatic diathesis and in those who have had a previous attack. With such a patient the prophylactic measures are hygienic, dietetic and medicinal. He should occupy a large, airy room, which can be kept dry, a room on the second floor being preferred since they are usually dryer than those on the first floor. Flannel should be worn next to the skin to prevent chilling from exposure to cold and dampness, either of which will precipitate an attack more quickly than anything else, for which reason, it is desirable to avoid such exposure.

The diet should be rich in certain basic consituents of food which will correct the conditions of hyperacidity and reduced alkalescence, with a minimum of animal proteid. Potassium and sodium compounds are the chief elements in maintaining alkalescence of the blood and at the same time rendering the tissue fluid alkaline, which is absolutely essential to normal metabolism. This is accomplished in a measure when the salts of these two are given as drugs, but incomparably better when they are in organic combination with vegetable proteid as provided by nature, for then they are assimilated and stored with the proteid and are present to neutralize the acids of metabolism as they are produced. The potassium compounds necessary for the human economy, are taken in with foods, while the sodium compounds are furnished by the oxidation of vegetable acids. Vegetable food contains from three to four times as much potassium as animal food and furnishes vegetable acids, which by oxidation furnish the sodium compounds. The chief source of the latter, however, is from fruits, since they are especially rich in vegetable acids. Based on these facts the diet should contain a minimum of animal proteid with a generous allowance of vegetables and fruits. Chicken, fish, oysters, bread, cereals, vegetables, fruits and milk form a suitable diet. Pastries, sweets, fried food and alcohol should be forbidden, especially the last since it retards oxidation and so injuriously affects the liver.

Medicinal measures are usually not necessary if the proper precautions as to clothing, exposure to cold and diet, are faithfully carried out. However, it is a good precautionary measure to frequently test the patient's urine for hyperacidity which is usual-

* Read before the North Carolina Medical Society at Charlotte, N. C.

ly a fair index to his condition. This can usually be corrected by the use of the various alkaline mineral waters, or by giving drachm doses of a solution containing 5 grains each of the acetate, bicarbonate and citrate of potash to the drachm. If in addition to this the patient drinks a sufficient quantity of water the kidneys are kept in a state of activity. The bowels should be kept open with epsom salts or sodium phosphate, for it is impossible to overestimate the importance of keeping the organs of elimination in the best possible condition. And finally, that household remedy, bicarbonate of soda, is never amiss in any stage during the treatment of rheumatism, helping as it does to maintain that alkaline condition of the secretions so desirable in this disease.

These in general are the prophylactic measures to be used and if successful the chief source of dangerous heart lesions will be eliminated.

The treatment of an acute attack of rheumatism is practically agreed upon. The patient is put to bed in a large, dry, sunny room. He is placed between woolen blankets and dressed in a light flannel night gown with open sleeves, which may be pinned with safety pins. These measures are useful to prevent the chilling and discomfort following the drenching acid sweats characteristic of the disease. The affected joint is wrapped in cotton batting, and if desired a splint applied. Should these not be well borne hot fomentations are applied locally, or a solution of menthol, chloral, alcohol, and camphor water used.

Free purgation is secured by calomel followed by epsom salts. The bowels are kept open throughout the course of the disease by broken doses of salts, a teaspoonful of the saturated solution being given often enough to get from three to five movements a day. After the first few days, however, if the acute symptoms are subsiding, such free purgation is usually not necessary.

Pain, which is by far the most distressing symptom, is controlled by the salicylate of soda. At times during the initial stage it is necessary to give one-eighth grain doses of morphia hypodermatically for temporary relief until the salicylate can be administered in sufficient quantities to afford more lasting results. The salicylate in ten to fifteen grain doses is given with a glass of alkaline mineral water every two hours until the pain is under control. As soon as this happy result is secured the dose is decreased and the intervals at which it is given are lengthened. If the intestinal tract has been emptied and all the organs of elimination are performing their duties well, the probability of gastric irritation will be greatly lessened .However, this may be obviated at times by giving the drug with a half glass of milk to which carbonated water has been added. Since the sole action of the salicylate is to relieve pain it is necessary to give ten grain doses of sodium bicarbonate to combat the condition of hyperacidity. At the same time alkaline mineral water is given *ad libidum* and should these not prove sufficient to render the urine alkaline, or neutral, five grain doses of the acetate, bicarbonate and citrate of potassium in solution are given. Throughout the course of the disease the urine should be kept alkaline or neutral if possible.

The fever is allowed to take care of itself since as a general thing it is not high and if it is does not persist. Should hyperpyrexia be present it is treated in the usual way by sponging, cold baths or cold packs.

During the acute stage of the disease milk is the sole article of diet and even this should be withheld until the alimentary tract has been emptied and cleansed. Lemonade and orange juice may be freely given, and after the acute symptoms have subsided vegetable soups and fruits are allowed. As soon as convalescence is established, vegetable soups, cereals, green vegetables and fruits are given, which diet after a few days if there is no sign of relapse, may be increased by the addition of fish, chicken and oysters. The return to a full proteid diet should be very gradual and discontinued at the first sign of relapse. Where the patient is not sufficiently well nourished on a non-proteid diet it is necessary to increase the amount of proteid earlier after the acute symptoms have subsided. Throughout convalescence the patient's bowels are kept open by small, repeated doses of a saturated solution of epsom salts and the urine is kept neutral or alkaline by alkaline mineral water.

Usually a profound anemia follows an attack of acute articular rheumatism which necessitates the use of some preparation of iron. Blaud's pills are satisfactory in adults, while the syrup of the iodide of iron is used in children and if at the same time Fowler's solution is given the damage to the red blood cells is repaired and recovery materially hastened.

To insure against a relapse and to obtain the speediest return to a state of health, it is best to keep the patient in bed at least a week after the acute symptoms have subsided and the temperature is normal. The greatest precaution should be taken against exposure to cold and dampness and this same vigilance should be maintained for weeks after an apparent cure is well established.

The stethoscope should be constantly used

during an attack of acute rheumatism, whether the attack is severe or mild and at the very first sign of cardiac distress prompt measures should be employed to afford relief. The necessity for this is apparent when it is remembered that at times although the rheumatic symptoms are obscure and insidious the cardiac lesions following may be most extensive, entailing upon the patient an existence of discomfort and despair, while the futility of a hopeful prognosis will be ever present to disturb the mind of the attending physician. To know that in a great many instances the possibility of such a state of affairs may be avoided by the prevention of rheumatism, is to recognize the fact, that, after all has been said, prophylactic measures are the most important in the treatment of acute articular rheumatism.

Marasmus.*

By E. H. Brooks, M. D., Reidsville, N. C.

There is, perhaps, no disease in the entire realm of pediatrics which is so clogged with a mass of obsolete terms and contradictory statements as that of marasmus. The wide divergance of views of pediatrists upon this most important disease has only served to foster controversy and to cause confusion in the minds of the profession at large. Our knowledge of this distressing condition in the past has rested very largely on authority, and too often it is the case that *what* was taught was deemed of secondary importance to *who* taught it. The name marasmus itself (meaning as it does "wasting away") is at once unscientific and misleading. A "wasting away" is a natural sequence of any disease—tuberculosis, enteric and malarial fevers, syphilis, pneumonia, etc. A study of the literature on this subject tells us that if the baby has an aggravated case of indigestion, he has malnutrition; if the malnutrition is severe and the baby dies, it was not malnutrition but inanition; that if by reason of strength he survives inanition, it is no longer that but is marasmus. I cannot believe such loose methods of distinction can find justification in sound, scientific medicine.

Holt defines marasmus as an extreme form of malnutrition in infancy independent, so far as is known, of constitutional or organic disease—that it is a vice of nutrition only. I am inclined to think that a better definition is that given by W. Gilman (3) Thompson who says that marasmus "is a form of starvation occurring chiefly in artificially fed infants, but also in those at the breast, in whom there is great wasting of the muscular and other soft tissues, and sometimes catarrh of the alimentary canal." In my experience there is always more or less catarrh of the intestinal canal. Personally I am very much of the opinion that marasmus is essentially a neurosis, characterized by great muscular atrophy, due to a diseased condition and starvation of the trophic nerves.

Pediatrists are practically a unit in agreeing that marasmus presents a larger mortality than any other disease of infancy. Holt says that in his experience in four institutions considerably over one-half of all deaths of infants under one year old is due to marasmus. The experience of other pediatrists is in line with this statement. Variot is authority for the statement that marantic infants are always incurable if they weigh less than one-half normal weight between three and eight months. Dr. Wm. J. Butler (2) says that 99% of marasmus cases die at the Cook County Hospital (Chicago). While these figures are unquestionably true as regards institution work, they are misleading and have, I believe, been productive of harm. With such discouraging figures from authorities on the subject it is little wonder that the general practitioner approaches the treatment of marasmus with great trepidation, and oftimes is defeated before beginning the battle. It is manifestly unfair to assume that this high mortality rate is alike applicable to institution work and to private practice, because marasmus can be much more successfully treated in private practice than in infant hospitals. This is due to the fact that plenty of fresh air, so essential in treating this condition, is at a premium in large institutions, and it can be had in abundance without money and without price in private practice. In all the infant hospitals in New York with which I am acquainted, only 400 or 500 cubic feet of air space is allowed each infant in the wards, in spite of the fact that the marantic child should have at least 1000 feet, even with the best of ventilation. Such conditions not only prevent successful treatment, but in many cases produce marasmus in infants previously free from the disease.

The statement frequently made that marasmus is rarely seen in private practice is, I think, an error. While this is in the main true, I am persuaded that more cases are seen in private practice than is generally supposed. Certainly we have more cases in North Carolina than we had 10 years ago. This increase, I believe, is due to the large influx into our towns of a rural class of population, who move to town to work in our cotton mills. Many of the women who work daily in the mills have young babies

*Read before the North Carolina Medical Society at Charlotte, N. C.

who cannot receive proper attention and are practically left to shift for themselves. This, together with the fact that there is such absolute ignorance among this class of people of the ordinary laws of health and hygiene, serves to give us a constantly increasing crop of marantic babies. For this reason the subject is of peculiar interest just now to North Carolina doctors.

Pathology and Symptoms —Post mortem findings are disappointing for the reason that the changes found are generally due to some intercurrent trouble which caused the death of the marantic baby. As a rule the brain is anaemic and the sinuses are filled with dark, fluid blood. Many cases show a strip of hypostatic pneumonia an inch or two wide on the posterior border of both lungs. If the baby was very young there are generally areas of atelectasis in the lower lobes. The stomach may be dilated, and there is almost always evidence of intestinal catarrh. Frequently the solitary follicles of the colon and Peyer's patches are enlarged. None of these lesions are constant, but I am inclined to think that there is enlargement of the stomach and catarrh of the bowels in practically every case. In all the autopsies I have seen—possibly six or eight—both of these conditions were present.

But little need be said of the symptoms since the history and general appearance of these cases are strikingly alike. The wasted little body, sunken fontanells, hollow temples, sharp features and prominent abdomen present a clinical picture which, once seen, can never be forgotten. Anaemia is a constant symptom and is generally very marked. In many cases the amount of haemoglobin is reduced to as low as 30%. If the case is severe there is subnormal temperature, the thermometer showing a rectal temperature of 95 to 96 degrees F. Occasionally there is a general oedema involving the cellular tissue of the entire body. This is generally associated with extreme anaemia and is an exceedingly grave symptom. As would be expected the stools frequently show mucous and undigested food. Vomiting is easily excited, and many infants decline all food. Sometimes there is a reflex spasm of the muscles of the neck, producing marked opisthotonus. In one of my cases this condition was so marked and persistent that a diagnosis of meningitis was made. Many cases simulate tuberculosis very markedly, and differential diagnosis is extremely difficult and ofttimes impossible. The chief reason for this is the fact that so many cases present chest symptoms which are misleading. If there be dullness of the chest posteriorly it may either be tuberculosis or hypostatic pneumonia. Syphilis sometimes gives trouble in making a diagnosis. However, careful inquiry from the parents of the child as to specific or tubercular taint will generally clear up the matter.

Etiology —In general terms it may be said that marasmus is due to one of three things, named in order of their importance: (1) Food, (2) environment, (3) heredity.

(1) It must be remembered that marasmus does not always mean that the baby has had too little food. On the contrary I am inclined to believe that the condition follows the ingestion of too much food rather than too little, and that more babies are fed to death than are starved to death. Many infants have literally starved to death with a full stomach. Protracted error of diet is the certain road to marasmus. If your baby is fed cow's milk, impurity of the milk, methods of modification and feeding are all causitive factors. If the baby is breast fed quality and quantity of the milk and the general condition of the mother must be considered.

Probably the most frequent cause of marasmus is the pernicious habit of taking the baby away from the breast and substituting some one of the numerous infant foods which flood the market. Too often it is the case that the baby is weaned on the score of convenience, because it is so much easier to feed him from the bottle than it is for the mother to nurse him. Nothing could be simpler than to raise the baby on patent food according to "directions on the bottle." Such practices should be unqualifiedly condemned by the profession. So widespread has this evil become that many European physicians, notably Roberts[4] advocate the practice of giving donations of money to mothers who nursed their own babies. I have never seen a substitute for mother's milk, and I never expect to see one. I believe that all infant foods, without exception, are a snare and a delusion, and that their effects are unqualifiedly bad. I have never seen any indications for their use, and I believe any physician is censurable who does use them except in extreme cases. A glance at the charts prepared by E. E. Smith, Ph.D., for Dr. Holt[1] comparing the ingredients of the various infant foods with those of mother's milk and cow's milk, is convincing proof of the pitiable inadequacy of patent foods to the needs of the growing baby.

Many theories, some more ingenious than scientific, have been advanced in explanation of just how a faulty diet leads up to a marantic condition. An early theory, now abandoned, was that the condition was due to tabes mesenterica; that the flow of chyle was interferred with by occluded glands, and consequently no nourishment was re-

ceived from the food taken. Parrot contended that there was an atrophy of the gastro-intestinal mucosa. In this opinion he was sustained by Fenwick in England and Baginsky in Germany. This theory has received no support in America, and I know of no American Paediatrist who subscribes to this view. Wentworth[5] discusses most interestingly in the Journal of the American Medical Association Czerney's theory that the marantic state is due to an excess of fat causing chronic acid (lactic) intoxication, ultimately impairing the function of the liver. Keller, Langstein, Vander, Bergh and a host of others give support to this theory. In proof of the correctness of his views, Czerney points out that there is an increased quantity of ammonia excreted, indicating that the economy is deprived of its alkali or neutralizing agent, and consequently an excess of fat is retained. It has also been shown that there is an increase of the phosphoric acid in the urine. Salge, of Berlin, holds this view and says marantic infants bear fats so poorly that he is in the habit of placing them on centrifugated mother's milk. In this way he eliminates the cream and gives skimmed mother's milk. Czerney's theory is the newest one, and is attracting more attention than any other at the present time. It seems to be based on sound reasoning and is winning a great many adherents. All these theories are interesting chiefly for their ingenuity, but they serve to throw some light on an abstruse subject.

(2) There can be no question but that unfavorable surroundings and undue crowding are controlling factors in the heavy infant mortality in large cities. In many of our mill towns, where so many live in small houses crowded close together, we have conditions approaching in some degree, at least, those existing in the crowded tenements of the large cities. In one case plenty of fresh air and sunshine is an impossibility; in the other it is denied the baby because its importance is not realized. Deprived of the fresh air and sunshine that rightfully belongs to him, the baby soon becomes an easy prey to gastro-intestinal disorders and attending ills.

(3) Heredity as a causitive factor has not, I think, received proper attention at the hands of the profession. Illegitimate offsprings of immature girls are especially prone to marasmus. Even when old enough for maternity many women are still immature through lack of physical development incident to a life of constant drudgery unrelieved by fresh air and favorable hygienic surroundings. Many women begin work in cotton mills when at a formative period, and are thus arrested in development and unfitted for maternity. The evils of child labor have lately become of widespread interest, and the question is not only of medical interest, but of sociological as well. The baneful effects of child labor is strikingly shown by Dr. Chas. W. Roberts, of England. He has taken into account nearly 20,000 young men. Of this number about 5000 belong to the non-laboring class, and something over 13,000 to the artisan class, workers in cotton mills. The difference in height, weight, and chest girth from 13 to 16 years old is shown as follows:

Height (Inches)

Age	13	14	15	16
Non-laboring class	58.79	61.11	63.47	66.40
Artizan class	55.93	59.66	60.58	62.13
	3/8	1/4	3/8	1/4

Weight (Pounds)

Age	13	14	15	16
Non-laboring class	88.60	99.21	110.42	128.34
Artizan class	78.27	14.61	96.76	108.70
	11	15	14	20

Chest Girth (Inches)

Age	13	14	15	16
Non-laboring class	28.41	29.65	30.72	33.08
Artizan class	25.34	26.28	27.51	28.07
		3/8	3/8	3/8

The deductions to be drawn from the above tables are startling and furnish much food for thought. If these figures are true as regards boys, it is only fair to assume that the comparison would be even more striking if girls were taken into account, since it is a well known fact that arrested development is more easily produced in girls than it is in boys. Women who are themselves more or less marantic can not be expected to bear healthy children if there be any truth in the medical dictum that "like begets like."

Treatment is essentially dietetic. Since the condition starts from an error of diet, the error should be sought out and corrected. If the baby is breast fed, and a large proportion are in my experience, effort should be directed to improving the quality of the mother's milk. Diet, hygiene and strict observance of the laws of health should be the means employed. Galactogogues in my opinion are useless, and I have long since abandoned the malt products for this purpose. In this connection it is interesting to note that Dr. Southworth, of New York, says that corn meal gruel is the best thing he ever tried to increase the flow of milk. Two cupfuls should be given twice a day. I have tried this treatment in three cases with great success. Certainly the treatment is simple enough to warrant a trial.

If the mother cannot nurse her child the next best thing is to get a wet nurse. This is of extreme importance if the child is less than six months old. Unfortunately this is sometimes impossible because marasmus occurs most frequently among those who

cannot afford the expense of a wet nurse. If a wet nurse cannot be had recourse must be had to artificial feeding. Modified cow's milk should invariably be first choice. No set rule can be given as to just how the milk should be modified. A discussion of this would more than fill in the time allotted to this paper. The milk must be fitted to each individual case. One cardinal rule should be observed: modify the milk so that you have a low per cent. of fats and proteids and a relatively high per cent. of carbohydrates. It is a well known fact that marantic infants have great trouble digesting fats, but have little trouble with carbohydrates. It was formerly my custom to give a four per cent. cream mixture as a routine treatment. I have since learned better. Care must be taken not to overload the infant's stomach. Do not fall into the grevious error of allowing the age of the child and its weight to fix your choice of milk modification. Nothing is more fallacious. Rather be guided by the digestive and assimilative powers of your infant and give what can be digested without leaving a residue. Many cases do well on Pasteurized or peptonized milk. M. Perret says that Pasteurized milk not only does no good, but sometimes its use is dangerous. Schlesinger, of Strassburg, strongly advises the use of whole milk, claiming that it is very successful in his hands. It seems to me a risky procedure except in extreme cases. Some authorities report great success with the so-called butter milk cure. I have tried it in three cases and was pleased with the results. According to Prof. Stoos the milk should be prepared in this way: To a litre of butter milk add a tablespoonful of fine rice or wheaten flour. The mixture is heated and allowed to come to the boiling point three times, and must be stirred constantly. Add two tablespoonfuls of cane sugar. I believe this a valuable mixture unless there be acute diarrhoea and vomiting.

As a rule patient investigation and diligent effort will find some form of cow's milk that will agree with the marantic infant. However, there are a certain number of cases so preverse that no possible modification of cow's milk is tolerated. In these cases, fortunately rare, some observers claim good results with goat's milk. Dr. Bell[7] of New Jersey, claims that goat's milk fat, like that of human milk, contains less stearin than cow's milk fat, and notes that it remains fluid at a much lower temperature. Chapin calls attention to the use of asses' milk, but it is too impracticable to consider seriously. Dr. Cooper[8] claims that the nearest approach to human casein is the casein of hog's milk. He claims to have wonderful success in a few cases. I believe it was the late Dr. Leidy who said that the anatomy of a hog resembles that of a man more than any other animal, and that this is not the only point of similarity between the two animals. In my experience if you cannot get a wet nurse and no form of cow's milk is tolerated your case is sure to die no matter what course of treatment is pursued.

Drugs have a very limited field of utility in marasmus. I have never seen any great benefit follow the use of any medicine. Cod liver oil is thought by some observers to be of service. It should not be given if your baby's tongue is not clean and his digestion good—a combination rarely seen in this condition. I never use any fats except by inunction. This is good practice when you have a subnormal temperature. It also feeds the starved tissues, and the accompanying massage is good for the atrophied muscles. Arsenic seems to do good sometimes, especially when a catarrhal condition is manifest. Good brandy helps some cases, and I have occasionally thought the use of syrup of lacto-phosphate of calcium was beneficial. F——— malt sometimes helps.

Recently I have become very much interested in the subcutaneous injection of sea water in the treatment of infantile debility as devised by M. O. Mace and R. Quinton[9]. The original experiments were conducted at the Paris Maternity Hospital upon forty infants suffering from all kinds of chronic diseases, including marasmus. Under this treatment the average daily gain in weight of the little patients was 140 grains, and improvement was marked and seemed to be permanent. The only treatment given was the injection of salt (sea) water. The method of administration is extremely simple. The water is injected under the scapular every second day. For an infant weighing fourteen pounds 10 c.c. is a dose. This water is entirely devoid of toxicity, and the white corpuscles wax fat in it. No possible harm can come from this treatment. According to Hallion an animal can be injected with its bodily weight of sea water without harm. This treatment promises well, and is certainly worthy of trial.

Prophylactic and hygienic treatment is of vast importance. Intelligent co-operation on the part of the parents of the child is also of paramount importance.

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A Case of Eclampsia.*

By Dr. N. D. MacAtan, Ocracoke, N. C.

Few complicated cases in the practice of Obstetrics arise on the Banks of North Carolina. Most of the normal cases are handled by mid-wives; and when a complicated case arises, it is too late for the physician to give the patient any relief. Eclampsia is on the increase, and the people are learning that it is not safe to trust this important period of their lives to any one but a skilled physician. Many, therefore, are going to the nearby hospitals for treatment during the last month of pregnancy. In the last five years, in a radius of one mile, there have been no less than seventeen cases of eclampsia, of which eight died.

Few cases of septicemia are known, and only two cases of placenta previa are known to the mid-wives. Among the cases that have come under my observation in eight months, only two were complicated. One case was septicemia, which yielded to treatment with little difficulty. The other was eclampsia. I was called *for the first time* at nine p. m. to Mrs. G., who, the messenger said, was in labor and having "fits." I hastened to her bedside, and found *five* mid-wives with her, and found her arms and legs bound in mustard. She had been bathed all over with whiskey and asafœtida. I was informed that that was what "old Dr. so-and-so had done during the Civil War while the Yankees were at Hatteras for Mrs. ——." On inquiring I found that all day Mrs. G. had complained of headache; and at seven p. m. she said she was blind and had to lie down, and in fifteen minutes she had had a convulsion, and had one every half hour until nine o'clock, when I arrived. They had given one dose of potassium bromide after the first convulsion, and could not give anything else by mouth after that, as the patient was unconscious. On examination I found the pulse one hundred and twenty, breathing stertorous, tongue badly swollen, lips cut and bleeding, pupils dilated, os rigid, contractions regular and firm. I gave a dose of veratrum viride hypodermically. On catheterization I got about six ounces of urine. The urine was thick, of dark color, and of high ammoniacal odor. While I was waiting for the veratrum viride to take effect she had a convulsion. At first the body became rigid, eyes drawn to the right side, head drawn to left side, face livid, arms drawn up and then across the breast, hands clinched with thumbs between first and second fingers. She would writhe from side to side, and draw the body in every conceivable shape. Then spasm would set in. The hands, feet, head, arms and body would jerk; the mouth open and clinch; the tongue was forced forward and backward; froth stood on her lips; the face became blotched blue and red; and with a few jerky breaths and a struggle that seemed as if it would tear her limb from limb, the muscles would relax and again she would lie still. During the convulsions the pulse would be quick and compressible, the face was flushed and blotched blue and red. Before the convulsion the pulse was hard and quick. I gave three doses of veratrum viride without effect, as she continued to have convulsions. I gave chloroform, but I could control the convulsions only when it was given to the point of surgical anaesthesia. I gave 30 grains of chloral hydrate per rectum without effect. Again I began to push veratrum viride, 5 minims every half hour, but without effect, except to slow the pulse, not controlling the convulsions. At twelve, midnight, I was able to dilate the os, and I delivered a still born child. The patient continued to have convulsions. I began to give morphine, 1-4 gr., atropine, 1-150 gr. every half hour. The convulsions became further apart. This I continued until eight a. m., when convulsions ceased. At this point the patient began to show symptoms of septicemia from uraemic poisoning; from which she died at 10 p. m. without regaining consciousness.

These cases should impress on our minds the all important fact that the urine should be examined at regular periods during the last months of pregnancy; and if any irregularities are found we should correct them in time, for when eclampsia has set in it is then too late.

*Read by title before the North Carolina Medical Society at Charlotte, N. C.

Success in Pediatrics and How to Attain It.†

By E. A. Hines, M. D., Seneca, S. C.

Two notable papers have been read as Annual Addresses by the Presidents of the American Medical Association and the Southern Surgical and Gynecological Association within the year upon the general theme of "How to succeed in Surgery." A number of articles have likewise recently

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appeared upon "the passing of the general practitioner." These papers have to some extent influenced me in selecting the subject of this paper.

Pediatrics has been and will ever remain the work of the general practitioner, and I trust that a few remarks relating to the achievement of success may not be out of place, though the surgical star shines so brightly in the distance for many of you. In order that we may more clearly understand what success in pediatrics means today compared with what it was in the memory of some present, perhaps, permit me to present this graphic picture by Dr. J. J. Black in his book, "Forty years in the Medical Profession." He says: Great advances have been made in the general treatment and nourishment of infants in the last forty years. When I was a resident at the Philadelphia Hospital, Blockley, I had the opportunity of seeing something of the practical workings of the day in a foundling hospital, but before I had time to more than get a knowledge of the horrors of the system, much less to apply remedies, my term had expired.

At that day most of the foundlings of Philadelphia came to this hospital, and there were quite a number of these poor little waifs. In winter or in summer they nearly all died, starved to death, as it were, from too much and ill-advised feeding, paradoxical as that may appear. Indeed, if one lived beyond infancy it was a curiosity. One or two in several years did so survive, and one named after President Lincoln was always looked upon with wonder as a survivor of the holocanst of infants at Blockley. There was no system in caring for these bereft babies. A good well meaning woman was at the head of it, and the doctors looked in if anybody was ill, or if they took sufficient interest to go oftener. Pauper inmates from among the women were the nurses. Imagine such a thing as asepsis, the use of antiseptics, or any attention to detail with such a gang! The baby food was milk, generally diluted with water, cold or hot as best suited the convenience of the attendant. There was no special care of the milk, no special care of the bottles, and the same might serve for half a dozen children, and as a rule were fitted with, as I remember, the long hose nipples, an abomination, an invention of the devil. The babies did not remain long and the end was a death certificate of inanition and a grave in "Potters Field."

What a marked contrast is the statement of Prof. Theodore von Escherich, of Vienna, one of the greatest pediatrists of the day, viz: that modern pediatrics exhibits a scientific structure including all disturbances of the life processes, arranged according to scientific principles, and in its completeness not reached by any other specialty in medicine. To succeed in the truest sense of the word the practitioner should have the widest range of knowledge. According to Jacobi he should be familiar with general medicine, embryology and teratology, obstetrics, hygiene, and private and public sanitation, therapeutics both pharmacal and operative, and the specialties of otology, opthalmology, dermatology, and the motor system, pedagogy, neurology, psychiatry, forensic medicine and criminology.

Added to these subjects embarrassing in their number he should know the possibilities of orthopedic surgery. The pediatrist should be possessed of the utmost tact along with his scientific attainments. It is well to understand the child in health, but barring these opportunities it is absolutely necessary to know the disposition of the child in disease. In my early career I spent many hours by the bedside studying the vagaries of their disposition as well as their pathological vagaries. Those who can not acquire an absolute mastery of the child in disease should avoid this branch of the healing art. A large obstetrical experience I consider invaluable. A knowledge of the mother is a *sine qua non* to the knowledge of the child. The late Dr. O'Dwyer, of New York, so well known the world over, in a comparatively short life attended over three thousand obstetrical cases. The most complex problem facing the general practitioner, and one which he often surrenders to early, is the question of infant feeding. It is the corner stone of the structure which shall be called success. What is the gist of our knowlebge in this important matter? Dr. Alfred Friedlander, in a most excellent paper before the Cincinnati Academy of Medicine Feb. 12, 1906, sums up the matter. In Germany, he says, the basis of milk modification rests upon a system of caloric equivalents. The amount of nourishment taken by breast-fed babies is estimated by weighing the child before and after feeding. The caloric equivalents of this is calculated usually to the 5th decimal point. With this as a basis, sufficient quantities of diluted cow's milk are taken to give approximately similar results. The exact percentage of proteids, carbohydrates, fats, *per se* are disregarded, and the attempt is made to find, in artificial, a calorimetric quotient of nutrition which shall approximate that of the breast-fed baby as much as possible. In America largely under the leadership of Rotch, of Boston, the percentage system of feeding has come into vogue. The essence of this method lies in the consideration of the different elements of milk separately

and in the attempt to adpat these elements individually to the child's digestion. The French say: To facilitate the digestion of cow's milk, we are obliged to dilute it by adding water in varying proportions, according to the age of the child. The younger the child the greater should be the amount of water used as a diluent. This water should be previously sterilized or boiled, and to it there should be added a small quantity of ordinary sugar of milk. The following solutions should be adhered to:

First month—1 part milk—1 part water.
Second month—2 parts milk—1 part water.
Third month—3 parts milk—1 part water.
Fourth month—whole milk.

No caloric equivalents, no laboratory percentages, no milk algebra in the otherwise happy home. A year ago I presented before the South Carolina Medical Association for the first time the methods of infant feeding in equatorial Africa and South America. The data was secured by careful scientific observers at my request. In Brazil the cow's milk is scarcely obtainable. Unsweetened condensed milk made in Switzerland or France and sterilized milk from Europe is used by some physicians. The poorer natives use a kind of mush or gruel made from Mandioca meal. They begin giving this from the second day, thinking mother's milk is not sufficient. This food is given dry after weaning which swells in the stomach, and which is shown by the gait in walking. Child life is a survival of the fittest.

In Africa infant mortality is very high. Children are fed on soft cassava pudding before being weaned. The wet nurse is used, but it is common for the motherless infant to be sold. Cholera infantum is frequent. Over-feeding is a frequent source of trouble.

In brief I have outlined the infant feeding of four continents, the greater part of the globe. Let us learn all we can of this unsettled problem. I believe that in America we shall have much to unlearn. Every modern text-book I have examined accords little favor to the wet nurse. In cases of difficult feeding I believe we have drifted from the only hope of satisfactory help. The artificial feeding of the new born is a stupendous task. Mixed feeding is infinitely better. I believe the profession has seriously erred in creating by voice and pen a sentiment against the wet nurse. I here present the photographs of some of my cases bearing out my statements. Case number one is a fine specimen of boyhood. The mother, a primipara, paid her tribute to surgery a few years before marriage by an ovariotomy and ventro-suspension of the uterus, besides having chronic ear disease from early life. She soon demonstrated her inability to completely satisfy her child and tried various artificial foods with serious results. I advised at once a wet nurse and the trouble ceased. About the 4th month cow's milk was substituted for the wet nurse with the success you see here. Case two should have the prize. The mother died when the baby was a few hours old. I advised a wet nurse whose baby died about same time. She nursed the baby 13 months —turned the baby over to the grand-mother, who finished the good work with buttermilk. Never was sick a day. Case three, mother had prolonged septic pyelitis. Baby had to be weaned at 3 months. We had everything money could buy for artificial feeding and tried many plans except the wet nurse. Chronic entero-colitis developed first summer and death appeared imminent after a long effort of treatment at home. I had the child carried to the mountains 30 miles distant, and with a long distance telephone in the house and in my office conducted the case to a successful issue. The altitude was two thousand feet. The entire siege of the illness was six months. Case four, mother's milk insufficient, wet nurse secured for two months and then cow's milk begun with the happiest results. Case five, very difficult feeding, tried various artificial foods. Entero-colitis of severe type developed second summer. Carried her to the highest habitable point in the mountains nearby and altitude of nearly four thousand feet conducted personally the treatment for a month with good results.

If the average wet nurse is paid well and treated decently she can generally be secured. As the cap-stone of this structure called success, I place the hygiene of the child. It should be the corner stone, but I fear the time is far in the future when hygiene shall be rightfully regarded. In my own community I have inaugurated a plan, which I believe is original with me, looking to this end. I offer a gold medal, known as the physical culture medal, in our graded school. The requirements are as follows: To be given for special care of the body, neatness of dress, clean hands and hair, clean teeth and erect carriage; 50 per cent. of the count to be taken from observations by the teachers while out of school hours. The scholars vie with each other; the teachers frequently allude to the contest; and most important of all the parents are now taking a lively interest. There has been no distressing epidemic in the school since this plan was begun, whereas formerly such was the case almost every year. This fact may be a coincidence. I hope to introduce dental hygiene by lectures from our dentists at some future date.

Time forbids the all important subject of diagnosis and treatment of disease. I have tried to embody general principles. Simplicity is the keynote of success in most therapeutic measures.

Scarlatina.*

By Chas. G. Bryant, M. D., Roaring River, N. C.

Scarlatina is a febrile affection, which derives its name from the bright scarlet eruption with which the whole surface of the body becomes covered. The disease varies considerably in the violence and danger of its symptoms in different cases. It may appear under a very mild form, without any disease of the throat, or accompanied with very considerable pain and swelling of the fauces, and occasionally, when it occurs as an epidemic, the affection of the throat assumes a very dangerous and malignant character.

Scarlatina is propagated by a specific contagion, like small-pox or measles, and like them, is believed by the best observers to attack a person only once during life; though the apparent exceptions to this remark are more numerous in scarlatina than in the other diseases above mentioned. On the third or fourth day after exposure to the contagion of scarlatina, a feverish attack occurs; and about the second day of this fever, a bright scarlet rash appears on the surface of the body, as well as within the mouth and about the fauces. The milder form of scarlatina is distinguished by the rash with a moderate degree of fever, and with very little affection of the throat. The rash first appears in innumerable red points about the neck and face, and by the next day they are seen over the whole surface of the body. About the fourth day the eruption is at its height, and on the fifth it begins to decline. The surface of the fauces and mouth appears red, and little red points appear on the tongue, rising up through the white crust which covers it; and when this crust comes off the whole surface of the tongue is red and sore, and the points are still prominent, giving to it an appearance like that of a strawberry. There is sometimes considerable swelling of the face, and of the throat. This constitutes the mildest form of the disease; one, indeed, so mild as hardly to require the aid of medicine; but one, nevertheless, in which by mismanagement and officiousness the feverish symptoms may be considerably increased, and some inconvenience, if not danger, induced. To prevent this, the patient should be kept cool and quiet; should not be over-loaded with bed clothes; his diet should be sparing, and cooling drinks and mild laxatives should be recommended. In other cases of scarlatina, the febrile symptoms at the commencement are more severe; there is a sensation of stiffness and pain on moving the neck, and it is also painful to swallow; the voice is thick and the throat feels rough and straitened. The heat of the surface rises in a most remarkable manner; not only to the sensations of the patient or observer does the heat seem greater, but the thermometer shows it to be 106 or 108 degrees; that is more than ten degrees above the natural standard. There is sickness, headache, great restlessness, and délirium; the pulse is frequent, but generally feeble, and there is great languor and faintness. The tongue is of a bright red color, especially at the sides and extremity, and the rising points are very conspicuous. The rash does not appear so early as in milder forms of scarlatina, and is seen in patches, very frequently about the elbows. Sometimes it vanishes and appears again at uncertain times without any corresponding change in the general disorder.

When the rash is slight, or goes off early, there is little scaling of the skin; but in severe cases large pieces of the skin come off, especially from the hands and feet. I have seen a specimen of an almost entire epidemic covering forming almost a natural slipper from the foot of a negro girl 8 years old. But it is comparatively seldom that such perfect moulting takes place. The desquamating process is usually completed in a fortnight from the commencement of the disease. The swelling and inflammation of the throat sometimes go off without any ulceration; but at other times slight ulcerations form on the tonsils, and at the back of the mouth, and whitish specks are seen intermixed with redness from which a tough phlegm is secreted, which clogs the throat and is very troublesome.

This kind of scarlatina is not infrequently followed by great debility, or the occurrence of other diseases as inflammation of the eyes or dropsy, or an inflammatory state of the whole system. In other cases the throat is greatly swollen and within assumes a black color; the patient discharges from the mouth and nostrils a dark putrid sanies, occasionally mixed with dark colored blood; the breath is offensive; the pulse small and quick and the face tumid and of a leaden or violet hue; and the patient frequently dies from suffocation at an early period.

In the treatment of this disease, it is, in general, proper to begin with giving an emetic, especially if we at all suspect that the stomach is over-loaded with indigested matter; and we are very soon after to ex-

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hibit laxative medicines, which are truly one of our most important remedies in this disease. A dangerous exhausting looseness, which takes place towards the fatal termination of ill-managed scarlatina, for a long time excited great fears and prejudices against the use of laxatives in this disease; but better observation has shown that so far from being detrimental, laxatives, early and prudently administered, have the best effect in migating the disease and in preventing the collection of that putrid and offending matter in the bowels, which is so sure to produce wasting diarrhoea when it is suffered to accumulate.

To lessen the burning heat of the skin nothing is at all comparable to the free application of cold water by affusion, which, when employed prudently and at the proper time, cools the surface; and from a state of the most painful and restless irritation restores the patient to comparative ease and tranquility. It is in scarlatina that the powerful remedy of the cold affusion has maintained its ground; in all cases accompanied with increased and uniform heat and dryness of the surface, it should never be omitted, as its salutary effects are speedy and certain, and nothing else with which we are acquainted is capable of affording such immediate and permanent relief. And till the heat of the body is reduced, it is in vain that we give internal medicines to procure perspiration, or to allay restlessness and induce sleep. After the cold affusion it is not at all unusual for the patient to fall into a gentle and refreshing sleep, and a mild and breathing sweat to come out over the whole body.

This supersedes the necessity of sudorific and anodyne medicines, and provided we attend to the bowels, keep away stimulant and nourishing food, and employ the proper gargle for the mouth and throat very little else will be required in a large number of cases. The inflammatory state of the system which often follows scarlatina is not infrequently accompanied with a swelling resembling dropsy, but we are not to regard this last as a sign of debility, or to be deterred in consequence from the use of very active remedies. Brisk purgatives are to be freely administered, and the inflammatory and dropsical tendency to be combatted by the use of diuretics, When the inflammatory action has subsided and the dropsy appears to be the principal malady, we are to give tonics and nourishing diets, with medicines to increase the flow of urine. If there seems a determination to the head, our practice must be decided and active and consist of purging and cold applications to the head according to the urgency of the symptoms.

In the more malignant forms of scarlatina the symptoms are more rapid and severe, the general system is much oppressed, the throat and neighboring parts are affected with rapidly spreading ulcerations. It is this which has obtained the name of putrid sore throat. This form begins like the preceding, but on the second day shows symptoms of peculiar severity. The rash is usually faint, and the whole skin soon assumes a dark or livid red color. The heat is not so great nor so permanent as in the other varieties; the pulse is small, feeble and irregular, there is delirium and coma, the eyes are suffused with a dull redness, there is a dark red flush on the cheek, and the mouth is incrusted with a black or brown fur. The ulcers in the throat are covered with dark sloughs, and surrounded by a livid base; a large quantity of tough mucous collects in the throat, which empedes the breathing, increases the pain and difficulty in swallowing. An acrid discharge comes from the nostrils, producing soreness, chaps, and even blisters. There is severe diarrhoea, spots on the skin, bleeding from the mouth, or other parts, all of which portend a fatal termination of the disease. Sometimes the patients die suddenly about the third or fourth day; at other times in the second or third week; gangrene having probably arisen in the throat or some part of the bowels. They who recover have often long illnesses from the ulceration spreading from the throat to the neighboring parts, occasioning suppuration of the glands, cough, and difficulty of breathing, with hectic fever.

In treating this variety of scarlatina there is a difference of opinion. An emetic should be given as soon as possible and repeated if necessary. Vomiting in this disease not only tends to take off the dry burning heat of the skin by relaxation, but unloads the throat and fauces of the fluids that gorge and distend them. Mild aperients are likewise necessary, and a combination of calomel and rhubarb is generally the most useful. Antiseptic gargles should be freely used and the room be often fumigated with the nitrous acid vapors or sprinkled with chloruset of lime, and where gargling is impossible the throat should be freely washed with a muratic acid solution several times daily, and when the state of the throat is bad, the solution should be made strong and frequently used. In a few cases it is advisable to apply lunar caustic to the ulcers of the throat. Towards the decline of the disease, mild strengthening medicines may be administered, or the carbonate of ammonia, two drachms dissolved in five ounces of water, of which two teaspoonfuls are to be taken every three hours, according to the urgency of the case, and if the

symptoms are malignant towards the decline of the disease, the throat being deeply affected with spreading ulcers, the barks and acids, together with a light but nourishing diet, must be freely given.

There is no disease in which the final results are more uncertain than in scarlatina, and the physician should give a very guarded opinion as to how any special case may terminate. Whether the disease is contagious throughout its course or only at one particular period is unknown and if the physician is asked at what period the danger of imparting the disease on the one hand or catching it on the other, he should candidly declare he does not know. That the contagion remains attached to clothing for a long period is undoubted. Watson gives an instance of a small piece of infected flannel communicating the disease after an interval of one year. I have had one case under my own observation where it was communicated to a child 3 years old, from a house after a lapse of 9 months. The popular delusion that scarlatina is a mild form of scarlet fever should always be corrected as an error, as it might do much harm by leading to a disregard of those precautions which are always necessary in this very common disease.

In these desultory lines I have quoted freely from Watson and have given my own observations during the late Spanish-American War and my more recent practice of the disease as it occurred in the vicinity of Roaring River, Wilkes county, N. C.

The Rational Treatment of Tuberculosis.*

By William Redin Kirk, Ph.G., M. D., Hendersonville, N. C., Sometime Adjunct Professor Gynecology Hospital College Medicine, Louisville, Ky.; Professor Physiological Physics and Medical Latin, Kentucky School Medicine; Visiting Surgeon Louisville City Hospital and Jennie Casseday Infirmary for Women, Late Act. Ass. Surgeon U. S. Army, Member American Med. Ass.; Tri-State Med. Soc., N. C. Med. Soc., Henderson and Polk County Societies, etc., etc.

Realizing we have no specific for the treatment of tuberculosis, we naturally turn to those means and methods which have given the most promise of success at the present time, and I believe I am giving true voice for the profession when I say the open air- rest- diet and supervision methods have proven, in the hands of the most competent observers, the most reliable. Open air—the vista broadens as we contemplate how much that trite expression means. Open air, day air, night air, moist air, dry air, any kind of air, so long as it is not enclosed air, is the most important thing in the whole management of the case. How long has it taken us to arrive at this conclusion? If one desired to quote history, it would be shown that those who first advocated it were ridiculed out of the profession and today we humble pay tribute to their prescience by following in their footsteps.

Is there a choice of air? I say yes, when the patient can afford it. There is a growing tendency, I regret to say, among some of our members who, in their zeal to assist the cause, are denying any superior advantages to climate. Home treatment, when it can be administered in an institution equipped to give it, is a different matter from home treatment with improvised arrangements and the infinite annoyances concurrent thereto. The frequent intrusion of well-meaning, but mis-guided, friends who break in upon our patients' rest with numerous suggestions and proffers of assistance, provided it agrees with their idea of what is best for them. The business cares will not cease because of the close proximity; and a thousand and one little things too numerous to mention are against home treatment conducted in a private residence.

Understand me, my position is not one who opposes such treatment; on the other hand, I believe in it as the next best thing, and is often most salutary, especially when the patient has had the advantage of a course of instruction in a sanitarium.

Perfect freedom from all debilitating influences which may cause a set-back or exacerbation of the disease naturally brings us to a consideration of rest, exercise, and amusements. In prescribing rest, we are guided, mainly, by the patient's temperature, for anything that causes a rise of temperature will aggravate the disease. An elevation of temperature after exertion, physical or mental, is a positive indication that damage has been done. In the management of these cases the thermometer in the hands of the watchful physician is the same thing as the mariner's compass to the seaman.

When beginning a course of treatment with a new patient it is my invariable custom to require the temperature to be taken and recorded every two hours, for at least three consecutive days. Such a record, supplementing the careful examination of the patient's chest, sputum, blood and urine, gives us an insight into the case and a better understanding of just how much reserve force our patient has, which is a most important point, for in the very beginning of the management of a new case much harm can be done by careless instructions and indifferent obedience of the patient. When I find the temperature runs up upon slight

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exertion, I usually put my new patient to bed for a few days that I may watch the temperature curve under conditions of perfect rest; for then we have a more certain knowledge of what the patient can stand. Excitement incident to travel and getting settled in new quarters most always tells upon the patient's strength, and a rest for a few days in bed is quieting to the nerves and reassuring to the patient; for then they see a physician means to start in at once and handle them with firmness; something that is often neglected in the management of these afflicted ones by their home physician, who would not think of relaxing their attention in the least in most other conditions.

It is probable that no case of pulmonary tuberculosis runs its course without, at some time, during the disease, there is a rise of temperature; yet while this is true, in the majority of instances it is also true that there are many afrebile cases. Not every lesion is accompanied by fever. I now have a case of several years' duration in which the temperature has been normal for over a year. Recently this one developed a softening in the lower lobe of the right lung, with a formation of a small cavity without a rise of temperature. Such unusual condition should make us careful to frequently examine the chest, even when there is no elevation of temperature, because it is possible in cases of old standing, where there is more or less immunity, there will be no elevation of temperature.

Rest is never absolute, of course, but rest in bed with every annoyance removed in a healthful, cheerful environment, is the nearest approach. This can best be accomplished in a sanitarium. Next to rest in bed, the steamer chair in a spot protected from wind and sheltered from too direct rays of the sun is the best. Patients who are up and about and running very little temperature do better when they take an hour or two rest lying down in the afternoon. Exercise should never be taken just after meals, and should always be regulated by the thermometer. I require my patients to take their temperature before starting for a walk or drive and again upon returning. Should there be any elevation the exercise is curtailed.

Just here it may be wise to say that a bath taken in the tub is harmful to most all cases. The exertion of the bath, the different temperatures of the water regulated to suit the caprice of the patient, often does more harm than good. So far as cleanliness is concerned, the daily sponge is sufficient, and also adequate for all other reasons. Mental exertion will often raise the temperature as much as physical exertion. Writing letters home, games of cards, or such like forms of amusements I have seen elevate the temperature of patients over a degree. Patients who have rested all day and obeyed every instruction will sometimes indulge in a game of whist after tea, with a result of a degree rise, and spend a sleepless night in consequence. I have observed this so often that it has gotten to be a routine question with me in my first examination of a patient.

Rest is more important, by far, than all the drugs in the universe. Cough, intestinal disturbances, night sweats and fever can all disappear under rest. In fact, I rarely give any astringents in diarrhoea or remedies to control night sweats. The early morning cough is beneficial and should not be interferred with, except, perhaps, to assist by pulmonary inhalations of the essential oils combined with creosote in a menstrum of glynol. I think deep pulmonary inhalations of these substances given daily not only loosens the cough, making it easy for the patient to expectorate, but in time dries up the excessive excretion. Large doses of creosote, (and I give Morson's double-distilled creosote from pine tar in preference to all others) given in this manner does not disturb the stomach and may be continued indefinitely. Almost the same benefit can be derived by this method of administration as can by the old method of administering large doses by the stomach. Another important point is the fact that we keep the residual air in the lungs saturated by creosote and in this manner favor the prevention, to a certain extent, of re-infection from the patients themselves. Given as it is, by compressed air, requiring the patient to take deep inhalations, has also a beneficial effect, because it makes the patient expand unexpanded areas and strengthens by exercise the respiratory muscles.

Those who are able to make daily visits to the office usually receive this inhalation as a routine practice unless there be some contra-indications. They come more readily when they see that something is being done, enabling you to keep a stricter supervision of them than would otherwise be possible. I require my patients to keep a daily record of their temperature, rising and retiring hour, hours out of doors, exercise, amusements, and a record of the variety and quantity of food, how they sleep, etc. A copy of the record blank is here exhibited. I may say it is not original with me, but being of especial service to one handling a number of cases, scattered about in hotels and boarding houses of a mountain resort.

As to the matter of exercise, usually walking and driving are the most beneficial. In prescribing walks it is best the patient

should start out on the level and continue so, or if allowed a grade that should be taken at the beginning of the walk, for the return trip must always be on a level or down grade. Here a careful scrutiny of the temperature is absolutely necessary. Driving for those who are not able to walk should be so regulated as not to fatigue. Any exercise that fatigues is harmful and should be stopped.

As much difference of opinion as to diet in the management of tuberculosis, the one essential point that all agree upon is that the patient should take the greatest amount of the most nutritious food requiring the least amount of digestive effort. I sometimes think we err in crowding too much nitrogeneous food upon our cases, as the experiments of Chittendon, of Yale, have recently demonstrated. There may be much harm done to the excretory organs which have to eliminate the end products. Further observation along these lines will perhaps show us we may have erred in trying to force digestion past the point of assimilation. I have no rule or set diet list to go by, but try to study out the requirements of each individual case. Some patients do better on three meals a day, with milk or eggs in between; others improve most upon one large principal meal, in the afternoon, with small quantities of food at short intervals throughout the day. Milk and eggs, I think we all agree, is the best form of food for the tubercular subject. I do not rely much upon artificial food products, although at times in conditions of enfeebled digestion malted milk, liquid peptonoids, Mulford's preparation of beef, somaotose, and a few other excellent proprietary articles have given me good results.

It is obvious that there are many times when it is not wise to increase a patient's diet. Grave structural changes in the kidney, enfeebled heart action, marked defective pulmonary circulation, tubercular involvement of the abdominal viscera and when a patient has markedly passed his normal weight, the tendency towards hemorrhage is increased by rapid gains of weight beyond the patient's natural standard. These to the laity are the most puzzling. They can not understand why a person who has become corpulent, looks rosy and well, should suddenly die of pulmonary hemorrhage. I think in our efforts to put on weight we sometimes overlook the strength of the weakened organs we are over-taxing. A diet that is sustaining the strength of the patient and inducing a general gain is large enough, and I think we should discourage the rivalry we all notice among our patients to out-eat each other. The patient's wishes and appetite are not to be consulted, for often large quantities of food can be taken and assimilated when there is a positive repugnance to it in any form. Rather consider their ability to digest and their power to eliminate than the caprices of their appetites.

In conclusion, let me say no case can be carried to a successful issue without the closest, most careful supervision, and the hearty, willing co-operation of the patient. I once heard a distinguished physician say (when asked if a certain case that he had not examined could get well, he replied), "If the patient has a good heart, good digestion, sound kidneys, and some common sense, I do not care what the lesion in the lungs may be, I will promise to improve him." How often do we fail to relieve our cases who have all the other requirements, yet lack the common sense to intelligently and willingly co-operate with the physician who is doing his utmost to benefit them. I know it is hard to give up pleasures, to quit business, in fact, to stop everything and buckle down to the task of getting well, especially in the face of repeated set-backs, but how else can we accomplish anything at all, except with the most obedient observance of all our instructions? It is more than half the battle to win the confidence of your patient and hold it, so they will implicitly follow the minutest detail with hopeful intelligence. Then let me say I believe the best and only way to accomplish these results is by being perfectly frank and honest with them from the very beginning. Tell them their condition truthfully, explain it to them in simple language that they may understand, advise them carefully as to the minutest order, and by so doing you stimulate their confidence in you and their belief of your ability to cure them. They know better then the dangers, can foresee the pitfalls, better understand why they don't improve, be better prepared to be hopeful through the worst, and all through the trying ordeal will aid you the most willingly, redown the most to your credit and be the most benefit to them.

The Treatment of Tuberculosis.†

By Arthur R. Guerard, M. A., M. D., Flat Rock, North Carolina.

The subject of tuberculosis and its treatment is old but ever new. It has occupied the attention of physicians from the earliest days of medicine. It is still present with us, and will be for years to come, to be written about and discussed and argued, with as much intensity and vigor always as it was in times past. Nor is this to be

†Read before the North Carolina Medical Society at Charlotte, N. C.

wondered at, since this most prevalent and fatal of all diseases continues to attack one-third of the human race and destroy one-seventh in the course of a single generation. What treatment have we now for the cure of tuberculosis? What hope have we of being able to check its devastating ravages?

Doubtless many of my hearers well remember what the treatment for consumption amounted to only a comparatively few years ago. Up to the time when Koch discovered the tubercle bacillus, in 1882, and proved that this micro-organism was the essential factor in the production of tuberculosis, the true cause and nature of the disease was unknown. Its treatment was hidden in complete ignorance and darkness. Even within the last decade, owing to the hesitency of many physicians to accept the germ-theory of its origin, advanced by the German bacteriologist, and because of an imperfect knowledge and understanding of what the disease was and what its symptoms indicated, the treatment continued to be characterized by want of confidence on the part of a large majority of the medical profession; and on the part of the consumptive patient, who still clung to the old traditions of fateful heredity and inevitable doom, with discouragement and despair.

Gleams of light, however, have been breaking through the darkness. The gloom and despair enveloping the unfortunate victims of the great white plague have been gradually giving place to increasing enlightenment and hope:—until today countless numbers of physicians, sanitarians, philanthropists, and thinking men and women generally throughout the civilized world, have banded themselves together in societies, leagues and associations, with the confident belief and expectation that by the adoption of proper measures of sanitation, education and treatment, this dread destroyer of the home may be finally eradicated. In the consummation of an end so devoutly to be wished for, let us as physicians and guardians of the public health do everything in our power to aid in the good work, for the honor of our profession and for the sake of humanity. Already much has been done in the prevention and cure of tuberculosis, in places where it has been most prevalent and fatal; another decade of combined and co-operative action along the lines indicated will undoubtedly accomplish still more encouraging results.

The scope of this paper will not permit of more than a brief summary of the most important and best known facts concerning the treatment of tuberculosis. If in this review much that is presented sounds familiar to your ears, pray excuse the repetition; there are some things of such great interest and importance that they cannot be too often reiterated or too strongly emphasized.

Tuberculosis a Curable Disease.—The knowledge that tuberculosis is not necessarily fatal, but that in a large majority of cases it is a curable affection, is one of the most cheering facts which modern science has vouchsafed to the contemplation of suffering humanity. The supposed relentless fate which condemned to lingering misery and certain death every individual affected with this disease, has proved to be not so merciless after all. Many cases of tuberculosis are now known to have been cured spontaneously or by natural means; many also have been cured by prompt and proper treatment.

The most striking proof of the curability of tuberculosis is afforded by the findings in postmortem examinations made upon thousands of persons dying of other diseases, sudden deaths, accidents, operations and the like. These show not only the extraordinary frequency of tubercular infection but also that in a large percentage of cases the disease undergoes a spontaneous process of arrest or healing. Even conservative estimates place the proportion of spontaneously healed pulmonary lesions at from 10 to 25 per cent. Regarding the possible cure of consumption under suitable sanitary conditions and treatment, demonstrable proof is furnished by the results obtained in special sanatoria, and after long sea voyages or extended sojourns in the mountains and other healthy localities, under medical supervision. In an analysis of fifteen hundred cases of tuberculosis discharged from the Adirondack Cottage Sanatorium from two to eighteen years, Lawrason Brown (1903) gives the following data: 1,066 patients were traced, 434 untraced. Of the 1,066, 47.7 per cent. were still living; 30 per cent. were well; 6.5 per cent. were arrested; 4 per cent. relapsed; 5.2 per cent. were chronic and 53.3 per cent. died. Thus, out of all classes of patients treated nearly one in three remained well after two or more years, and therefore may be said to have been cured.

Indispensable Conditions of Cure.—But for the cure of tubercular disease certain conditions are almost always indispensable. Among the more important of these are: First, an early recognition of the disease before there is any serious constitutional involvement; second, a resolute determination on the part of the patient to submit to the heavy sacrifices which are necessary in order that the treatment may have a reasonable chance of success,—such as change of occupation, a radical alteration in the mode

of life, a prolonged perseverance in a rational hygiene and suitable medical treatment of symptoms, and, if possible, a change of climate; third, there must be cherished a confident hope of recovery, not the spurious *spes phthisica* of the dying consumptive, but a hope strong enough to warrant a cheerful acquiescence in the unusual sacrifices which the treatment requires. (Lindsay).

The importance of an early recognition of the disease cannot be over-estimated, for upon this, more than anything else, depends the success of the treatment. The recognition of incipient tuberculosis, however, is not always easy. Physical examination, even by the most expert physician, is seldom sufficient to reveal the existence of the disease with any degree of certainty. In the early stages all the usual signs and symptoms ordinarily ascribed to tuberculosis may be entirely absent, or if present they may not be conspicuous enough to attract the attention of the affected individual or his medical adviser, and their true significance may thus escape observation. The only positive means of recognizing beginning pulmonary tuberculosis is by the bacteriological examination of the sputum. Other means have been proposed for the diagnosis of incipient tuberculosis, and in the hands of some physicians have been successfully employed, viz.; the tuberculin test and the Roentgen rays. Neither of these, however, by reason of the necessary restrictions upon their employment, are ordinarily suitable for general use. It is true that tubercle bacilli may not be found in the expectoration on the first examination, and in the absence of cough and expectoration in the very beginning of the disease, certain difficulties are presented in obtaining a good specimen for examination; but nevertheless the bacilli are often present in small numbers very early in the disease, and perfect accuracy of diagnosis can be established in no other way.

The inflammatory changes set up by the invasion of the tubercle bacillus into the tissues are usually at first very slight and the effects entirely local. The area of infection is now small and restricted, and the tubercular process not infrequently is spontaneously arrested, the bacilli in this case dying off and scar-tissue as in the healing of wounds being formed. At this stage of the disease, therefore, the best opportunity is afforded for successful treatment. But if the disease is unrecognized or neglected, the process is apt to extend, and the area of infection is enlarged by the formation of masses of tubercles, until finally a great part of one or both lungs becomes affected. The bacilli, at the same time, continue to grow and multiply and produce poisons which are absorbed by the system and give rise to constitutional symptoms. It is this stage of the disease which is generally recognized by its physical and other signs, consolidation, respiratory changes, cough, expectoration, hemorrhage, loss of weight and appetite, sweats, fever, etc., and which commonly goes by the name of consumption. These cases, however, with very few exceptions, usually end fatally, despite all treatment.

It is thus of the utmost importance that the diagnosis should be made at the earliest possible moment. On the slightest suspicion of tuberculosis the expectoration of the suspected individual should be examined microscopically, and if the bacilli are immediately found the examination should be repeated at intervals. Tuberculosis is to be suspected, moreover, in all cases in which there is cough, with or without expectoration, persisting for more than a few weeks, or in which there are symptoms of anaemia, unexplained pallor, loss of weight and strength, languor, indigestion or loss of appetite, even if the cough is slight or absent; and also after other respiratory and wasting diseases, such as bronchitis, pleurisy, pneumonia, grippe, typhoid fever and the like. (Biggs).

But while the examination of the sputum is all important in making a diagnosis of incipient tuberculosis, the clinician should not endeavor to shift all the responsibility from his shoulders to those of the bacteriologist. A single examination of the expectoration is absolutely valueless, and if not interpreted as it should be can be of the greatest harm to the patient. A single negative examination means nothing except that the particular specimen examined gave a negative result. A negative result, to have any practical significance at all, and never to be compared in importance, of course, with a positive one, must be the collective result of a series of careful observations of the daily specimen, raised preferably early in the morning on waking, for a period covering at least two or more weeks. In the absence then of bacilli, and in the absence of all symptoms, we may possibly decide against the presence of tuberculosis. It is the general practitioner, however, not the specialist, who must bear the greater burden of responsibility in making the diagnosis of incipient tuberculosis, because this depends, as a rule, on the careful and constant observation of the patient for a prolonged period of time, and on the possession of every fact that can be elicited from a complete history of the case, knowledge of the surroundings and life of the patient as well as of all symptoms including, lastly, the physical examination.

Drugs and Medication.—So far as we know today there is no specific remedy for the treatment of tuberculosis; the ideal means of treating the disease by specific drugs or medication, as mercury for syphilis, quinine for malaria, or antitoxin for diphtheria, is yet to be discovered. Whether serum-therapy is destined to solve the problem remains for the future to decide, but up to the present time the results obtained from treatment with anti-tuberculous serum would scarcely warrant our forming such an opinion. Every conceivable way of procuring the true products of the tubercle bacillus seems to have been tried, so as to cause the injected animals to produce antibodies, both antitoxic and bactericidal. Various recent investigators have presented claims that their sera are truly curative. But although these scientists undoubtedly have large experience in this kind of research, the final judgment will probably be that little good comes from the injection of these sera in the human subject. Very few observers have succeeded, apparently, in obtaining appreciable results with the sera prepared by other experimenters. In spite of much conflicting testimony, it would seem to be safe to say, therefore, that no new sera obtainable have any great value. Nor as we look at the progressive nature of tuberculosis can we see much ground to hope for the abundant development of curative substances in the blood of animals. This view, however, in no way lessens the necessity for continued effort until every method known to science has been completely exhausted. (Park and Guerard).

At the same time, while there is no known specific medication for the cure of tuberculosis, the use of drugs should not be ignored or decried for the relief of symptoms. Cod liver oil and the hyperphosphites certainly act beneficially in many cases as general foods and tonics in up-building of the system, especially with those patients who are compelled to remain at home amid unsuitable surroundings. And many other remedies such as the preparations of creosote, strychnine, arsenic, belladonna, opium, cocaine, mercury and ammonia, etc., in the hands of skillful physicians and in properly selected cases, have given good results in symptomatic treatment. To withhold all drugs, which appears to be the tendency at present, because they have no known curative influence upon the tubercular process, while they may and often do contribute to the relief of discomforting symptoms, would seem to be to deprive the patient of some of the means of combatting the disease when he most needs their assistance,—that is until circumstances may permit of his being placed in proper hygienic or climatic conditions. Far more important, however, than drugs, is the immediate adoption of hygienic and dietetic measures, suitable nutrition, rest, and, as soon as possible, climatic change.

Climatic Treatment.—Some years ago climate was thought to play an essential part in the treatment of consumption, and patients were advised to go to one or another of the numerous health-resorts for consumptives, with the idea that certain climates had a specific curative effect upon the disease. But we now know that, though one climate may be better than another, generally speaking, or that because of its abundance of sunshine, pure air, little fog and moderate temperature,—which are the special characteristics of our Western North Carolina mountains, —one may possess certain advantages over another for the treatment of tuberculosis, it is not so much the climate as the out-door life and fresh air by day and night, which do our patients good. If made use of in the proper stage of the disease and under the proper conditions, climatic treatment is distinctly beneficial, but it is not suitable for consumptives during the acute stage of their affection. Many an unfortunate has been induced to leave home and friends to live poorly and alone in some far-away place, to die finally perhaps at sea, or lay his bones on a foreign strand, because he was told that climate would miraculously cure him. Not a few so-called health-resorts for consumptives have become more or less infected, in spite of their originally pure air and healthfulness; and it is often better for patients, even if physically, as well as financially, able to seek climatic change, to stay at home and take advantage of such hygienic conditions as may be obtained in a large city under skilled medical supervision, rather than go to a place much frequented by consumptives, however specific the climate is supposed to be, and do without the necessary comforts, good food, medical attention and sanitary protection. Under no circumstances whatever should a consumptive be sent or remain anywhere except on the advice and in the care of an experienced physician, and preferably in a sanatorium especially equipped and exclusively applied to the treatment of tubercular patients.

Sanatorium Treatment.—The modern sanatorium treatment,—that is the combined climatic, dietetic, hygienic and symptomatic treatment of tuberculosis in institutions created for that purpose, as founded by Brehmer in Germany, in 1859, and by Trudeau in this country, in 1884,—is certainly the best which we have to offer to our patients at the present time. Not only

do these institutions present to consumptives in the earlier stages of their disease the greatest possible chance of recovery, but they are the best means of caring for those who are so far advanced that, as far as treatment is concerned, there is little more to be done. In a well conducted sanatorium, the physicians in charge are more thoroughly trained and have larger experience; the patients are under more constant medical control and supervision, can be more closely watched and continually advised as to the minor details of their dialy life; the instructions given are more likely to be followed, by mere force of example, in an institution where patients are managed collectively than when treated individually at home; and, last but not least, there is to be considered the inestimable educational value of systematic sanatorium training on the patients as a means of teaching them not only how to take care of themselves now and in the future, but how to avoid re-infection of themselves and prevent the infection of others.

"By the modern method of treatment," says Clifford Allbutt, "we are not only curing the individual, but we are also laying the chief stone of the edifice of prevention. This modern method we may call the method of Brehmer; but it is called more commonly the sanatorium method. To this name some objection has been made; it is said that the method may be carried out independently of the sanatorium. We cannot be guided by the etymology of names,—no name can indicate all the connotations of its subject; but I think that this objection is a shallow one. The method was worked out in a sanatorium created for the purpose, it has been tested and perfected in sanatoria, and if now it can be carried on outside a sanatorium, which is not too readily to be admitted, this is so only by bringing the skill and the conditions of the sanatorium into the home. I should look with little confidence on the home treatment of a phthisical patient by a physician unversed in the practice of the sanatorium, and by a patient who had not had at least a month's training within its precincts. It is, as it were, to tell a boy at home to read his Cæsar and his Xenophan, a little Euclid and Algebra, to pat him on the head, bid him be good and industrious, and promise to call in a week or ten days to see how he has got on."

Home Treatment.—But while it must be acknowledged that treatment in special sanatoria is the best, ideally, for the cure of earlier cases, and for the care and isolation of more advanced cases of the disease, —there are some insurmountable obstacles to its general application, some evident reasons why the home treatment of consumptives is often practically obligatory. It is true that there are many private and public sanatoria at present in successful operation, and more are constantly being erected in various healthy localities in the country;—nor is there any enterprise more worthy of thoughtful consideration and encouragement, not only from a humanitarian and economic standpoint, but also for the protection of the public health, than the establishment of sanatoria for consumptives by States and cities as well as by private individuals;—but the capacity of all the sanatoria, State, municipal and private, and all other institutions of like character now in existence, or possible to be erected, would not suffice to accommodate but a fractional part of the patients known to be suffering from tuberculosis; and only a very small proportion of these could afford to pay for such treatment, or, even if they were given free treatment, would be able to leave home for the proper length of time to derive any permanent benefit from it. It therefore becomes a matter of necessity, in a very large majority of instances, to adopt treatment at home, or the sanatorium methods modified to meet the requirements of the individual and his surroundings.

The principles of this treatment are embodied in what is commonly known as the open-air rest cure:—fresh air out of doors as many hours out of the twenty-four as possible; fresh air all the time and in all weather, with or without sunshine, with or without dampness, with or without winds, with heat or cold; fresh air in doors, free extreme ventilation by day and night, sleeping with open windows summer and winter, or in tents outside; rest in the open; absolute rest in cases of hemorrhage, fever, or rapid heart action; superabundance of good wholesome food; graduated physical and respiratory exercises; proper attention to the skin by bathing, massage, etc.; observance of the general laws of hygiene; and employment of drugs for the relief of symptoms when distinctly indicated,—these are the essential features of the treatment.

Success in the home treatment of tuberculosis is of course possible but not easy of attainment. This slow, tedious and very chronic disease is uninteresting, as a rule, to the general practitioner, and its treatment demands special qualities and training on the part of the physician. A successful result depends upon the tactfulness, sympathetic manner and painstaking care with which the patient is handled; upon the close observance of each little detail of his daily life; upon the confidence with which the physician is able to inspire his patient, thus gaining his active co-operation and

cheerful willingness to follow implicitly all directions given. Although a disagreeable duty to perform, the physician should at once inform the patient of the nature of his malady as soon as it is known. It is a mistaken policy to withhold such knowledge from the affected individual, both for his own sake as well as those who live with him, and without such knowledge and understanding of the reasons why the instructions are given the patient cannot be expected to carry them out intelligently. If there is any reasonable hope of his recovery, let him know it. Tell him that his disease is curable, but that it may take many months or even years of incessant care and untiring zeal and perseverance to get well, the length of time and the final result of the treatment depending chiefly upon himself.

Results of Treatment.—Reference has already been made to the results obtained in the treatment of consumption. These are best exhibited in the official reports of various special sanatoria.

According to a recent report of the Adirondack Cottage Sanatorium, (for 1904) of 296 cases admitted in all stages of the disease, 185 were discharged with the following results: 22 per cent. apparently cured; 58 per cent. arrested; 12 per cent. improved; 6 per cent. unimproved; 1 per cent died. Of 153 patients who remained from 3 to 19 months under treatment, that is a long enough time to show any positive results, out of 47 incipient cases 51 per cent. were apparently cured; 41 per cent. arrested; 6 per cent. improved; 2 per cent. unimproved and none died. Out of 106 advanced cases, 11 per cent. were apparently cured; 67 per cent. arrested; 12 per cent. improved; 9 per cent. unimproved; and 1 per cent. died. (Cases, in which the rational signs of phthisis and the bacilli in the expectoration have been absent for at least three months or who have no expectoration at all,—any abnormal physical signs remaining being interpreted as indicative of a healed lesion,—are termed *apparently cured.* Cases, in which cough, expectoration, and bacilli are still present, but in which all constitutional disturbance has disappeared for several months,—the physical signs being interpreted as indicative of a retrogressive or arrested process,—are termed *arrested*)

These results, which may be taken as a type of the best results obtainable by the modern or sanatorium method of treatment, are certainly most encouraging. They point conclusively to the fact that tuberculosis in its earlier stages can be cured in the proportion of at least 50 per cent., and an additional 40 per cent. arrested; and that even in its moderately advanced stages the progress of the disease may be checked in a large percentage of cases. Although the treatment given in private practice may not always show the brilliant recorded results of model sanatoria, still similar results are undoubtedly obtainable by diligent and careful application of the same methods in the home.

With this knowledge, which we now have not only of the cause and nature of the disease but of the successful results of its treatment, we are warranted in asserting that tuberculosis is not an inevitable decree of fate, not a cruel dispensation of Providence, beyond all human control,—as was formerly supposed,—but that it is both preventable and curable. Despite the pessimistic skepticism of the critics who ridicule our belief as the dream of sanitary enthusiasts, we believe, and have good reason to believe, that this widespread and dangerous infection may be eventually exterminated,—and this by comparatively simple and easy means. There is no specific treatment, for tuberculosis, and none may probably be discovered; but the remedy for this, as for many other ills from which mankind unhappily suffers, rests largely in ourselves,—

> "Our remedies oft in ourselves do lie,
> Which we ascribe to heaven: the fated sky
> Gives us free scope, only doth backward pull
> Our slow designs when we ourselves are dull."

On the Early Occurrence of Adipocere.

Vaughan (Indian Med Gaz., Calcutta) records five cases of alleged formation of adipocere within a few days after death, which he hopes will strengthen the position taken up on this question by medical jurists in India. This is doubtful, unless more scientific descriptions are given of the appearances presented, and also some information is afforded as to the chemical tests upon which so much reliance seems to be placed by the author.

The first case recorded by Vaughan was a European who fell into the Hooghly on January 1st. The body was recovered on the 8th, and upon the following day a post-mortem examination was made. "There was little odor of putrefaction, and the muscular tissues of the thoracic parieties, part of the mesentery, the skin from over the umbilical region, and the meat in the contents of the stomach, the fat and fascia from the supra-pubic region, appeared to me to show traces of saponification."

Case 2 refers to a woman who was found dead in bed in her house three days after she was last seen alive. Vaughan states, "The pectoral muscle and lungs appeared to me to be distinctly saponified, and portions of them were sent to Major C. H.

Bedford, who again confirmed my opinion on chemical analysis."

Case 3.—On May 24th a man was murdered and left lying in an empty hut in a plantation. On the 29th the author examined the body, and says, "Again noticing that there was remarkably little of a foul odor from a body so long dead. I suspected saponification, and discovered it in the tissues of the thoracic and abdominal parietes and in the lungs and omentum, portions of which I sent for chemical analysis." The result of the chemical analysis was that there was "distinct evidence of partial saponification."

Case 4.—The author again suspected (*sic*) saponification in the body of a man who met his death in some premises which went on fire. The post-mortem was made seven days after the occurrence: "there appeared to me to be distinct traces of saponification." Portions of the tissues were sent for chemical analysis, and the reply of the chemical examiner was, "that the tissues sent him responded to the most important tests for adipocere."

Case 5 refers to the body of a fœtus which was found floating in a tank, and which could not have been dead for more than three or four days. "The protruding portion of the brain seemed to be adipocerous, and I removed it and sent it, together with other tissues, for analysis." The chemical examiners "both declared that there was no doubt about it; the brain clearly showed all the reactions of adipocere."

The early formation of adipocere is a subject of considerable medico-legal interest and importance, and Coull Mackenzie's recorded cases gave rise to a good deal of discussion and scepticism. We scarcely think Vaughan's paper will tend to remove doubts as to the accuracy of such observations coming from India, and would suggest that future papers on the subject should be accompanied by a careful description of the naked-eye appearances, as also of the tests upon which the chemical diagnosis rests. It might also be advisable that a definition of what is exactly meant by the term "saponification" in such cases should be given.

Alcoholic Dextrins in Some Cases of Marasmus.

Symes (British Journal of Children's Diseases) refers to the value of malt preparations in the treatment of certain forms of marasmus or essential atrophy. The writer includes the large class of food cases in which the feeding has been improper, which induces disorganization and morbid secretions of the digestive glands. Among this varied group will be found hypertrophy of the pylorus, pyloric stenosis, pyloric spasm, congenital malformation of the duodenum, stenosis of the esophagus, and enlarged retropharyngeal glands. In cases which have defied all the most approved methods of feeding, where cow's milk has failed and has been abandoned, even though skilfully modified, and where breast-feeding has likewise failed, and particularly where the so-called marasmus foods have failed, such as bread, jelly, wine whey, eggs, meat juice, and brandy, the writer has resorted to Dublin stout, the XXX brand. With its use there comes a marked improvement in the conditions, and soon he is able to add some proteids and fat to the diet.

Dr. Symes has had good success in the administration of porter or stout to infants that were collapsing. The writer does not claim that every case of atrophy can be treated in this way, but it is applicable to some cases, those in which milk and cream mixtures disagree and other methods fail. The author points out that XXX stout is a carbohydrate in one of its most soluble forms, and it contains a small quantity of alcohol, which is often indicated. Stout is, roughly speaking, an extract of malt, containing no starch, no sugar, with a small quantity of alcohol, averaging about 5 per cent. Proteids can be supplied with it in the form of beef juice and fat by the addition of cream or yolk of egg. The mixture is not unpleasant, and the child takes it well from a bottle. It mixes with milk not only without harm, but also aids in its digestion. If the child is breast-fed the porter does not disagree.

An analysis of the different forms of stout and porter brewed by Guinness is given. This shows that the XXX stout contains by weight 5.6 per cent. of alcohol and 8.8 per cent. of solid matter. He suggests that hopwort, which is unfermented stout, might be successfully used in the feeding of infants where the alcohol was contraindicated. It is a thick, sweet, brown liquid, containing all the ingredients of stout, except that sugar replaces the alcohol.

A Pointer Concerning Potass. Iodide.

In prescribing Potass. Iodide it is often necessary to increase the dose by one or two grains at a time. The drug is so very soluble in water that a solution can be made in which each minim of the solution contains one grain of the drug. To obtain this solution, prescribe as follows:

℞

Potass. Iodide, ʒj
Aquæ. q. s. ad fl ʒj

The patient can then be given a minim dropper and told to take so many drops in a half glass of water and increase it by as many drops each day as you wish to increase grains of the drug.

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PREVENTION OF RECURRENCE AFTER OPERATION FOR MALIGNANCY.

The preventive measures in cases of malignancy following operation have been and still are neglected by most surgeons. The surgeon has relied entirely on his skill and thoroughness with which he removes the tumor, and especially on the idea that he has removed every gland and every tissue that has been invaded by malignant cells. This, however, has too often proved disappointing in its results.

Within the last year Dr. Wm. Coley, of New York city has advocated and later condemned the use of the X-Ray as a means of preventing recurrence in these cases. At the last meeting of the North Carolina State Medical Society, Dr. W. D. Witherbee, of Charlotte, N. C., read a paper on X-Ray treatment as a preventive of recurrence following extirpation of malignant growths, in which paper he recommended a method which has been carried out with seemingly good results.

This method consists in removing, in so far as possible, all the tumor and all invaded tissues and glands, and, instead of closing the wound and endeavoring to get primary union, the wound is left wide open. The open wound is then exposed to the action of the X-Ray every day until a complete scar has formed. This open wound not only allows the more direct action of the ray on the cells that may have been left and which cause the recurrence, but also affords a most complete drainage of the lymphatics in the area infected with cancer cells.

Many of the X-Ray specialists at present recommend the use of the ray for sometime before operating. They claim that the ray will rid the outlying tissues and glands of their malignant involvement and thus simplify and make the operation less mutilating. If we consider the original tumor as the generator of the cancer cells and the lymphatic channels the means by which the cells are distributed to the surrounding tissues and glands, does it not seem more practical to remove the generator or cause first and insure drainage by an open wound and at the same time convert a subcutaneous or deep malignant condition into a superficial one?

The results obtained in superficial cancers are now known to be the most satisfactory, but the results in deep conditions are well nigh hopeless. It may be said that by employing drainage in these cases and allowing the wound to heal by granulation lengthens the time of treatment and also increases the danger of infection. The latter can be prevented by strict asepsis; the former is necessary to secure a more certain destruction of every cancer cell.

The method is entirely rational and by its employment the percentage of absolute cures in malignant disease should be greatly increased.

CHRONIC MYOCARDITIS.

The changes of the heart muscle which occur in this pathological condition are of slow development, and presuppose the protracted working of influences which are injurious to the organ. In the majority of cases these influences are such conditions as cause a disproportion between supply and demand; the heart must work in excess of its nutrition. These influences may reside within or come from without, or there may be a union of both.

Under the head of influences which reside within the organism may be mentioned degenerative changes of the walls of the blood vessels and chronic kidney lesions. These, it is known, constantly increase peripheral resistance. Outside the organism are those conditions which produce long-continued overstrain, as mountain-climbing, forced marches during military campaigns, hard manual labor, the hard life of the sailor, consumption of large quantities of alcoholic beverages, &c. There may be, in many cases, a combination of both classes of influences. Yet with all this something more is required than mere increase of work: there must be a deficiency in the nutrition of the heart. This is brought about by any condition which causes the blood to be poor in quality, by diseases which set free toxins in and thus vitiate the blood; or, assuming the blood to be healthy, any condition which would diminish the normal amount circulating in the coronary vessels and their branches necessarily interferes with the cardiac nutrition.

With the two great factors, work and excessive or deficient nutrition out of proportion to that required for the work combined, then, not only chronic myocarditis, but in time also cardiac inadequacy result. Hypertrophy, so often resulting in chronic myocarditis, seems to be an attempt at compensation, an effort on the part of nature to repair the damage going on in the heart and, combined with these, the hypertrophy also results from the necessity of the heart to overcome peripheral resistance.

In the working classes, in soldiers, sailors, mountaineers, in those addicted to the use of large quantities of beer and other alco-

holic drinks and who at the same time perform manual labor, various influences are active. Bad and deficient food, hardships and privations and toxic agencies only serve to intensify the effects of overstrain. In South Germany, where cardiac hypertrophy and degeneration are seen in most typical form, the excessive consumption of large amounts of beer—the daily intake often amounting to many litres—causes great strain on the vascular system and this, together with the influence of toil and overstrain, are quite sufficient to account for the condition. Rosenbach believes the functions of the heart are impaired through respiratory embarrassment occasioned by constriction of the chest, and through the necessity of overcoming abnormal peripheral resistance, a condition observed in soldiers and mountaineers who carry heavy knapsacks strapped upon their shoulders, and thus loaded perform toilsome, difficult marches day after day. Athletic sports, the use of coffee, tobacco and alcohol are injurious only in their abuse, not their use.

Chronic myocarditis from disease of the coronary arteries is an expression of insufficient blood supply, circumscribed or general. In this case the extent of the morbid changes in the heart muscle and the rapidity with which the change takes place depends altogether upon the extent of the coronary sclerosis.

A NEW SYSTEM OF MEDICAL TEACHING.

There is much to be said in favor of the so-called "concentration" system of teaching adopted in some of the more advanced modern schools of medicine. It provides that the student shall not serve two masters, but shall devote his entire time to the study of one principal subject.

No builder erects the superstructure before the foundation has been laid. The "concentration" system provides a sequence in the study of fundamental branches which compels the student to build gradually but surely. At present the method seems applicable only in those schools whose entrance requirements make it necessary for the matriculant to have completed the courses in chemistry, physics, biology, &c.

In general the system is arranged as follows; Each school year is divided into two half-years, making the whole course to consist of eight half-years. In the first half-year the student devotes his entire attention to anatomy and histology; the second half-year to physiology and biological chemistry; the third half-year to pathology and bacteriology; the fourth, fifth and sixth half-years to practical medicine and surgery. As to the last two half-years, it is a question whether it is not more advisable to leave them elective. This enables the student to choose for himself the studies best suited to his needs. The method gives him the always necessary knowledge of anatomy before he begins the study of physiology; he is acquainted with the normal structure and normal functions of the organism before he ventures into the field of morbid and abnormal changes. He learns the disease processes and their causes before he attempts to make a practical application thereof. It entrusts to the student somewhat tardily a voice in the decision of his nearest affairs, and it requires, in the proper application of the system, that the student must at least have spent some valuable time in preliminary education, which not only better fits him for the study of medicine but also adds a few essential years to his age.

DR. W. E. FITCH.

We regret to note that Dr. W. E. Fitch, editor and owner of Gaillard's Southern Medicine, after having lived in the "Sunny South" since early childhood—close on to 38 years, and the last ten in Savannah—will, during the month of October, remove to New York City to make his permanent home. His removal to New York does not mean that the journal will be transferred from the South, although it was edited and published from New York from October, 1879, to October, 1904—just 26 years. On the contrary, it is to be hoped it will remain a distinctive Southern publication, striving, always, as it has for the past 40 years, to represent the entire medical profession of the Southern States.

The editorial policy will be dictated from New York. With the editor in the greatest medical centre of this country, and in close affiliation with the great hospitals and clinics, where even the air is permeated with professional inspiration Gaillard's should continue its brilliant past and long successful career.

Dr. Fitch is a native North Carolinian. He attended his first course of lectures at the Medical Department of the University of New York, graduating in medicine from the College of Physicians and Surgeons in 1891. In 1901, expecting to locate in New York, he formed a copartnership with the lamented Dr. I. N. Love, whose untimely death in June, 1902, for the time being disconcerted his plans. Dr. Fitch has just associated himself with J. Adelphi Gottlieb, M. D., M. A., L. L. D., of New York City, where they will have offices at No. 21 West 97th St. Dr. Fitch and his family will live at the LaFayette, 320 Manhattan Avenue, opposite Morning Side Park.

THE INFLUENCE OF ATMOSPHERIC PRESSURE IN DISEASE.

In recent years in the building of bridges and tunnels the use of caissons in which the workmen are subjected to increased atmospheric pressure has been the cause of many deaths and chronic diseases. In the caissons used to sink the piles of the St. Louis bridge the pressure equaled $4\frac{1}{4}$ atmospheres with the result, that, out of 600 men employed, 14 died and 119 were more or less affected. There were 15 cases of paralysis of the lower limbs. It was observed that the controllers of the air-lock, who were subject to compression and decompression every few minutes, never suffered. Among divers paraplegia is so common a symptom that it is known as "divers palsy." Many medical writers, knowing the effects of compression and of cupping locally, have ascribed the symptoms to the mechanical effects of pressure; they have argued that the blood is expressed from the outer parts of the body and congested within and that the disease is the result of the compression. They considered that the nervous system, enclosed as it is in a bony case, is protected from the pressure and was liable to congestion. Such suppositions neglect the fact that the compressed air is equally applied to every part of the outer surface of the body and in the lungs, and that the fluids in the body transmit the pressure equally and instantly to all parts of the body so that the mechanical effect is *nil*. That protoplasm is not affected by pressure is shown by the existence of abundant life in the abysm of the ocean, where, at the depth of 2000 yards, the pressure of the water equals 200 atmospheres. The minor symptoms produced are severe pains in the joints and muscles; the more severe symptoms are protean and include epigastric pain and vomiting, respiratory embarrassment, paraplegia, auditory vertigo, sudden loss of consciousness and death. The only mechanical compressions which can occur on exposure to compressed air are the compression of the air in the middle ear producing tension of the membrana tympani, noises in the ear and pain, if the Eustachian tube be closed. Compression of the gas in the alimentary canal also occurs, causing the workmen to tighten their belts. The etiologic cause of compression illness, which takes place when a man is rapidly returned to the normal atmospheric pressure, is the effervescence of gas in the body fluids. The gas set free on decompression may obstruct the circulation in various parts and produce one or another of the protean symptoms which caisson workers and divers suffer from. Gas frothing in the heart may instantly kill a man; bubbles in the heart or vessels of the lungs or in the respiratory centre produce embarrassment of breathing in another; air embolism of the cerebral vessels may cause aphasia, mono- or hemiplegia; of the spinal vessels, paraplegia; bubbles in the joints and aponeuroses, or in the posterior nerve roots and spinal cord, may cause the pains which are the most common symptom; a bubble in the ear labyrinth may be the cause of auditory vertigo. A further trouble may be due to the increased quantity of oxygen in the air owing to the compression.

Bert has shown that a high partial pressure of oxygen acts as a general protoplasmic poison, lessening the respiratory exchange, depressing the body temperature and provoking convulsions. The metabolic changes in compressed air have been carefully studied, and, contrary to expectation, it has been shown that oxygen tensions between 11 and 94 per cent. of an atmosphere have no influence on the rate of metabolism; within these limits the cell rules its own rate of metabolism artificially. Increased pulmonary ventilation does not increase and the withdrawal of half the blood does not diminish the oxygen used. The treatment of the caisson disease is difficult. Experimentally it has been shown that the bubbles of air which develop in the capillaries pass back into solution on a rapid reapplication of pressure, but only if the reapplication is delayed a very short time so as not to allow the air bubbles to tear up and permanently damage the nervous tissues or to produce strains of the circulation for too long a period. The postmortem examination of men stricken with divers palsy, etc., show extended necroses in the region of the posterior and lateral columns, especially in the cervical region; the blood vessels are distended with air bubbles and the blood corpuscles driven into clumps which resemble small hemorrhages. Recompression will alleviate the minor symptoms and the graver symptoms can be alleviated by the prophylactic treatment of making the decompression period last from 1 to 2 hours (only 29 minutes per atm. as a rule). At the same time the replacement of air by oxygen in the air-lock previous to decompression would render the process more safe and allow of its execution in a much shorter time. Free ventilation in the caissons is of very great importance; the sickness increases very much if the CO_2 rises to 0.1 per cent. atm.; 3-4 per cent. atm. of CO_2 produces dyspnoea under any conditions and 1 per cent. of CO_2 in the air breathed at 4 atm. pressure has the same effect as 4 per cent. at 1 atm. Impurities such as CO arising from flare lights, H_2S from the foul soil increase the risk from

rapid decompression by lowering the vigor of the workman and thus the efficiency of the pulmonary ventilation.

LONGEVITY.

Much has been written and advised upon the way to attain the age of three score years and ten, usually taking as a test the life of some successful man who has retained his mental and physical activity beyond the allotted span. The formula advocated with the greatest persistency is physical exercise and a return to nature and primitive habits. Physical exercise is no doubt of value, but not in the manner in which it is usually taken by the rising generation. To them physical exercise means physical strain, and the work that is put upon the digestive organs in the large quantities of meat they consider it necessary to consume, and upon the kidneys to eliminate the end products of their metabolism, as well as the strain put upon the heart and arteries by the violent exertion they undergo in their endeavors to break records causes permanent injury. If the same tactics were employed with a steam engine, viz., large quantities of fuel used, steam generated at the maximum pressure and the greatest amount of work put upon the engine intermittently and suddenly, every engineer knows that the life of the engine will be a short one. Every engineer endeavors to have an engine with a considerable balance of power so that it is never taxed to its utmost capacity, thus conducing to economy in repairs and in the life of the engine. Recently, at Westfield, Mass., a young athlete died at the termination of a quarter mile sprint race, showing that the over exertion brought to a premature end a life which might have been of value to mankind. Exercise is necessary but exertion is not. Fatigue should never become pathologic; it should always be kept within physiologic limits. Mr. Gladstone chopped down trees, but in a leisurely manner, and not every day; and the rest of the time was principally spent at his desk.

Our forefathers, before the days of railroads and electric cars, took a very large amount of physical exercise; they either rode or walked, but they did not race, nor was training for athletics part of their college course, except among the very few, and they probably ate more carbohydrates and less protein. Neurasthenia, nervous breakdown, etc., were comparatively rare, not because they did not work so hard, not because they had not the same amount of worry, but because they took more light physical exercise. They walked upstairs to their office, there being no elevator,—which if done slowly is one of the best exercises possible for the heart and lungs; they were compelled to journey by coach, which, besides obtaining fresh air and change of environment, was a rest from the cares of business. But probably the chief cause of their better health lay in the fact that they consumed more carbohydrates and less protein. In the first half of the last century it was the custom to eat pudding first, usually made of suet and flour with molasses or gravy, on which the appetite was satisfied and there was less desire to eat an excess of meat. If we compare our civilized life with that of the savage or of the wild animal, the latter never takes violent exercise unless forced to it by danger. The savage spends most of his time in idleness, only condescending to work at hunting or fishing; the animal has only one object to labor for, viz., food, and it expends only a sufficiency of work to obtain its equivalent of food. Their hearts are never dilated, their arteries never strained, their nerve force never wasted, so that they do not become easy victims to bacterial invaders. Arterial sclerosis, heart lesions, nephritis, neurasthenia, etc., are almost unknown and they are immune to disease because of their greater resistive power; they suffer less from pain and have a greater recuperative power than the civilized man. Over done athletics, over exertion, over eating are the direct and predisposing causes to a much larger number of chronic diseases and early deaths than excess of alcohol or syphilis. It is rare to find an athlete, after his training days are over, with a normal heart, arteries and liver, and when he goes into business takes to a sedentary life, continuing to live on the large quantities of protein he has been accustomed to, the resultant toxaemia gradually produces the heart lesion and nephritis which ultimately send him to an early grave. It is true that the average length of life has increased very much during the last 50 years, but that is rather due to the decreased infantile mortality than to the prolongation of life to beyond the age of 60 years.

THE DIGESTION OF FAT.

Recent experiments have thrown much light on the digestion, absorption and metabolism of fat; a proper understanding of these processes is of great advantage in the treatment of digestive disturbances and emaciation. In the mouth the fat undergoes no change. In the stomach it has a tendency to inhibit the secretion of the gastric juice, but if finely emulsified it is very largely split up by the lipase of the stomach, for instance, egg yolk after one-fourth has digested, contains 78 per cent. of fatty acid; the finer the emulsion the greater the action of the lipase which must

play an important role in the digestion of the newly born, as at that age the pancreatic juice is inactive. The taking of fat increases the secretion of pancreatic lipase; no lipase is obtained from the mucosa of the intestine or from the chyle. The bile has a dual function as a fat solvent; it acts upon lecithin and cholesterin and aids in the excretion of these very insoluble bodies; it also acts as a solvent in the intestine for both free fatty acids and soaps, conferring their entire solubility on the former and largely increasing the solubility of the latter. These solvent properties are chiefly due to the sodium glycocholate of the bile, and, in all cases, where there is defective absorption of fats, the administration of sodium glycocholate mass is indicated and in fact is the only treatment which will produce physiologic results. In diabetes, where the substitution of fats for carbohydrates is of such importance, it is especially indicated. Lecithin and cholesterin are held in solution by the bile salts, and, when the latter are reabsorbed from the intestine, they are precipitated and eliminated. The diminution of the bile salts in bile is the primary cause of gallstones and the administration of *sodium glycocholate* mass will prevent their formation, and, by continued treatment, will dissolve them *in situ*. As a treatment in intermittant hepatic colic it is specific. From the intestine, at the height of the digestion of a fatty meal, there are absorbed fatty acids and soaps dissolved in soap and glycerine, but, in the thoracic duct, 90-95 per cent. of the fat is in the form of neutral fat, showing that, either in the cells of the intestinal mucosa or in the lymphoid tissue, the synthesis of neutral fat must be brought about. It has recently been shown by Moore that the synthesis takes place in the intestinal mucosa and that it is not due to a lipase but takes place in the living cell. No fat splitting ferment exists in chyle, but, in blood, Connstein and Michaelis have shown that fat is changed into an easily reversible, soluble, filtrable and dialysable form in which it is transported into the tissues. The essential conditions for this action of the blood are: (1) The presence of the red corpuscles—the serum does not act. (2) The presence of oxygen. (3) A very fine emulsion of the fat (milk is too coarse); what the fat changes into is unknown, but the products are insoluble in ether, soluble in water and dialysable. To sum up, finely emulsified fat is split in the stomach and other fat in the intestine; the products, soap and fatty acid, are dissolved by the sodium glycocholate, absorbed and built again into neutral fat by the intestinal mucosa; the neutral fat passes by the chyle into the blood and is there changed into an unknown soluble, filtrable, dialysable modification and passes in this state through the capilliary wall into the tissue, then the process is reversed, neutral fat being synthesized and laid down as depot fat.

THE PROPHYLAXIS OF TETANUS.

Antitetanic and antidiphtheretic serums are the only antitoxic serums which may be considered as specifics for the diseases of which they are the product. The diphtheria antitoxin is so well known and so easily obtainable that it should be a criminal offence for any medical man, no matter of what school, not to use it, not only upon the patient but also as a prophylactic on all persons who have been exposed. The objection of the individual should not be considered any more than those of the antivaccination crank. Antitetanic serum is now fairly easily obtainable, and in cases where tetanus infection is suspected or even probable after thorough cleansing of the wound a 10 or 20 cc. immunizing dose of the serum should be administered, and the physician who neglects to do so and tetanus infection follows should be held accountable. Antitetanic serum has to be given in very large doses after the disease has once established itself; in fact, the price, if it is not supplied by the State, is almost prohibitory to the poorer classes, as the quantity used may be very large. It should be injected daily or even twice a day and sometimes oftener so as to keep the toxic symptoms under control. D. H. J. Scherck has immunized 291 cases of injuries from independence day vulnerators during the last two years without a single case of tetanus developing. In the previous year he treated 56 cases with no immunizing dose of the serum and in 17 of these tetanus occurred, or over 33 per cent.

The powdered serum dusted over the wound is said to be as effective as the injection and is more easily preserved and handled, removing any objection of the patient to the needle, in fact, he may be in ignorance, and should be, of the nature of the dressing used.

Review of Southern Medical Literature

Virginia Semi-Monthly, Sept. 7th, 1906.

Antitoxin and Diphtheria.—Dr. C. T. St. Clair believes that the time for administering antitoxin has been abundantly proven by experience in tens of thousands of cases that the time for administration is the very earliest possible minute after a reasonable diagnosis of diphtheria has been made. The element of time here is more important

than in most any affection known to the practitioner In young children especially it is far better to err even on the side of conservatism—the author believes that the free use of antitoxin is conservatism—than to delay too long waiting for a more positive diagnosis, for by the time you are fully convinced that an unquestionable case of diphtheria exists it may be too late to check the onslaught of the disease, or irreparable damage may already have been done, even though the patient survive the attack. To the general practitioner far located from the experienced bacteriologist and pathologist who has made special study of the bacteria the proven fact that the administration of antitoxin of diphtheria is practically harmless should be especially attractive. But two or three fatalities following the injection of this serum have been reported out of hundreds of thousands of individuals thus treated. It is certainly reasonable to estimate that out of this vast number many, many thousands have received antitoxin who did not entertain the specific germ. It is hardly worth while to insist further on the early administration of antitoxin as the following figures taken from a large number of cases reported by 500 general practitioners from various towns and cities in the United States show that out of 412 cases injected during the first three days of the disease the mortality was 4.8 per cent., while in 1448 cases injected on and after the fourth day the mortality was 27 per cent. Experiments have shown that after a fatal dose of toxin an animal can usually be saved by the administration of antitoxin within forty-eight hours, but rarely after that time.

Experience has shown that ordinarily 3000 units to a small child, say two or three years of age, with diphtheria is a sufficient dose, but if the case is severe the dose may be doubled or furthermore increased as the case demands. As much as 72,000 units has been given within a few hours to a child of five years suffering with severe symptoms without untoward results.

The Texas Medical News, Aug., 1906

A Synopsis.—Dr. C. E. Belcher says that prenatal and postnatal suggestions earnestly, lovingly and persistently applied will mould the little being more perfect physically, mentally and soulfully, tend to obliterate the degenerate type and strenghthen—and rearing often out of degeneracy—a higher and more perfect being. The mother's soulful, mental and physical state is important; after the pains of her accouchment are over the little babe should be treated as a product of nature. Not a doll or plaything it will laugh at the proper time; don't force it; it will walk after creeping, she need not teach it. In due course of time it will begin to articulate; for its future's sake don't cram it. Kissing and fondling may well be deferred. Continually exhibiting it to the kindly neighbors or curious friends is not only unnecessary but consummately wrong. "The sweet little thing" needs rest, quiet, loving care, but let it stop at that; chop the rockers off that old heirloom cradle, no child needs rocking, many have been rocked to heaven. The habit is a most pernicious one; a soft, downy pillow, a bed, and the mother's faithful arms while feeding are the only resting places it should be allowed until sufficiently strong to make the floor a playground. Regular feeding is absolutely a necessity, but never give it a breast under which rankles spite, hate, anger, or any emotion other than love and affection; better feed it slops. This quiet life will fit it and mould it into that calm receptive state where suggestion will be an accepted part of its daily life. And as that delicate brain begins to unfold and develop and understanding of external sights and sounds come then will develop and the powerful influence of that mother's life upon the responding soul of her loved one. During natural sleep will be found the most opportune moment to impress upon that plastic brain and growing soul thoughts pure and good by verbal expression and suggestion of the mother given in quiet, loving, fervent, impressive speech. Natural sleep floats one into the same receptive state as does hypnotic sleep; they are to all intents and purposes the same, simply different in degree—one natural, the other induced—the receptive condition is there and suggestion will hold sway. Thus while the little one is sleeping the mother using such language as would be understood by the child while awake may calmly, softly suggest that habits which are wrong should be righted, that the soul-power of the little subject is sufficiently strong to resist all temptations to wrong doing from time to time, naming these temptations and these wrongs.

Virginia Medical Semi-Monthly, Sept. 21, 1906.

Cough in Consumption and its Management.—Dr. W. H. Coffman says that cough is the result of a forced expiration with rima glottis closed. Is due to irritation of the vagus or one of its branches which transmits an impulse to the medulla where the respiratory motor nerves are acted upon. The irritation may be supplied by chronic pharyngitis, by laryngitis, bron-

chitis or by tuberculous ulcers in the larynx or trachea, though this latter is rare; from pleuritic irritation from superficially seated tubercles; by enlarged bronchial glands or by the presence in the bronchi of acrid material from a phthisical cavity or by tenia or other forms of stomach or intestinal irritations. In the insane tuberculous, the cough may be slight, because the reflexes are usually partially or wholly destroyed; in very old persons for very much the same reasons. Individuals of a phlegmatic temperament will cough less than the nervous irritable ones. Children and women are more apt to have severe coughs than men—children probably because they do not expectorate the offending material so well as do adults, and women because they respond more sensitively as a rule to irritation than men do.

Occupation has, of course, a very great influence upon the amount of cough. Those who spend the greater part of their time in offices or factories suffer more from it than those who are able to be in the open air.

Cough is usually less at night than in the day time, because the reflexes are less sensitive during sleep than in the waking hours. However, when there is a suppurating cavity in one side with a free opening and the patient lies on the other side acrid material may drain from it into the bronchial tubes in sufficient quantities to cause enough irritation to produce cough. Also, if the patient lies upon the effected side the gathering secretions may collect in quantities sufficient to produce a hypostatic congestion that will cause cough.

It may also be due to, or at least increased by, reflex causes—as diseases of the ear, nose, stomach, ovaries, etc. Also by the presence of foreign bodies in the ear (as creumen) or in the nose.

The Texas Courier-Record of Medicine, August, 1906.

Acute Dysentary.—By Dr. Edward C. Turner, Buffalo, Texas.

Texas State Journal of Medicine, Sept. 1906.

Some Points in the Early Treatment of Pneumonia.—Dr. C. A. Grey believes that the first symptom of inflammation is an increased rapidity of the blood flow in the part which is quickly followed by a slowing of the current and the extravasation of the plasma, together with a few erythrocytes and diapedesis of the leucocytes. The phenomena in the early stages of pneumonia in no wise differs from the early stage of inflammation in other parts of the economy.

The rational treatment then resolves itself into equalizing blood current to the prevention of stasis and to absorption of the exudates within the parenchyma of the lung tissue and within the air cells. The author knows of nothing better than the infusion of digitalis to equalize the blood current. It acts by stimulating the vasomotor constrictors, thereby contracting the over-distended arterioles and gives tone to the heart by stimulating the inhibitory centers. It also aids absorption by its diuretic action on the kidneys. The citrate of potash is usually combined to increase diuresis and by increasing the alkalinity of the blood absorption is hastened. Active catharsis is also produced by giving a large dose of magnesium sulphate to be followed by the mild chloride of mercury, extract of calocynth, etc. The cholagogues are almost invariably combined with quinine and put into capsules to be given every three hours until five have been taken. To be repeated if necessary. Local applications to the thorax are frequently used. If these do not relieve the pain morphia hypodermically is used. Liquid diet is advised, and at times eggnogg is allowed. The digitalis administered in the form of an infusion, tablespoonful every three hours and continued for twenty-four to forty-eight hours, is used in the early stages in the treatment of this disease.

While pneumona is considered a self-limited disease the author has been highly gratified with the results obtained through the administration of digitalis combined with other adjurants. He is aware of the fact that it is condemned by many, but is inclined to believe that they expected too much from it and were disappointed. Its early use can do no harm and it should be tried.

Texas Courier-Record of Medicine, Sept. 1906.

The Early Diagnosis of Consumption.—By Dr. W. O. Wilkes, Waco, Texas.

Gaillard's Southern Medicine, Sept 1906.

The Lymphatic System in its Relation to Disease.—Dr. W. L. Peple points out that it is a long and well established fact that inflammation of the pelvic peritoneum is far more prone to resolution than injections of the middle or upper abdomen, and yet many, many years had to go by before we were enabled to turn this knowledge to practical account. It remained for Fowler to demonstrate practically that absorption was slower in the pelvis than elsewhere; and it was to this tardy absorption and not to difference in kind of infection that led to better results in the pevic infections. He

showed that if by position we could keep the inflammatory products in the pelvis our results would be better in general peritonitis, and that the spread of local pelvic inflammations would be far less frequent. Murphy added to this the continuous enema of saline at low pressure to reverse the lymph current in the intestinal wall, making of the visceral peritoneum an exuding instead of an absorbing surface, thus washing the inflammatory products out of the drainage openings.

These two principles, both based on a knowledge of anatomy and physiology of the lymphatic system, are among the most striking advances made by surgeons in the last decade. Our present hope in cancer lies in a knowledge of the lymphatic system. To Halstead is due the credit of popularizing the radical operation for cancer of the breast. His work and its guiding principle have led to more careful and detailed study of the lymphatics of the breast, axilla and neck, and to a widespread appreciation of the practical utility of such knowledge. Bilroth and the Mayos appreciating Coneo's demonstrations of the lymphatics of the stomach have performed a large number of pylorectomies for cancer with a gratifying percentage of cures after long periods. This was only made possible by a knowledge of a direction of the lymph stream, the area drained by the vessels and the location of the nodes through which the vessels passed.

The surgeon must go oftener to the dissecting room and laboratory. The pathologist and the anatomist should come oftener to the operating room. All three should be found together far more frequently.

The Atlanta Journal Record of Medicine, September, 1906.

Conclusions Reached from Personal Experience with Appendicitis.—Dr. W. P. Nicholson says that it has been his firm conviction that more reflex disturbances and chronic invalidism from abdominal irritation and fatty assimilation result from chronic appendicitis than any other single cause. Chronic indigestion, especially of an intestinal type, finds here certainly one of its most potent causative factors. This is frequently true in cases where the patient has never given a history of any well-marked attacks and the condition seems to be one of interstitial inflammation with extreme hyperesthesia. In all cases of chronic invalidism no investigation is complete without a thorough examination of the appendix. Sometimes the tenderness is confined to the organ itself and can only be elicited by point pressure with one finger, while again there may be general abdominal tenderness. Chronic appendicitis is very common in women and is not unusually confounded with right ovarian disease, but in the author's experience the tenderness from ovarian disease has never extended as high as McBurney's point. Numbers of women have suffered a loss of the ovaries from which no relief was obtained, and the abdominal pain and reflexes remained only to disappear when the appendix was removed later. There is a case in the city where a young lady lost both ovaries at the age of seventeen, passed through years of torture and was gradually relieved only when the appendix was removed five years later. The author has many times seen intense dysmenorrhoea cured by removing a damaged appendix, and in fact he believes that many patients suffer from this condition where it is due solely to chronic appendicitis. Had women no ovaries no exact diagnosis would be found in such cases. The author is convinced that reflexes through the solar plexus do not belong to ovarian disease, and the cause in such cases should be sought for in the appendix and other organs.

Nashville Journal of Medicine and Surgery, September, 1906.

The American Medical Association.—By Dr. E. S. McKee, Cincinnati.

Texas Medical Journal, September, 1906.

A Minor Surgical Operation for the Prevention of Conception and its Application.—Dr. J. W. Kenney says the operation consists simply in the placing of a valve by surgical means in the cervical canal. To do this two incisions are made in the anterior cervical lip—one on either side of the mesial line and about one-eighth of an inch from it. The tongue thus made is depressed and the edges of the two incisions are brought together over it. Some trimming is necessary to make the operation an artistic one. This, however, will suggest itself to the operator. We thus form a valve-like projection into the cervical canal which acts as a practical barrier to anything entering the cervix, while on the other hand it but slightly obstructs the passage of anything from the womb.

A condition similar to the one artificially produced as just described is often found to exist naturally in the shape of small tumors in the cervix. The sterility of these women is frequently cured by the removal of these small growths. In like manner the sterility artificially produced can be relieved at any time such a course may be deemed necessary by the removal of the

surgically constructed valve in the cervical canal.

Chief among the conditions calling for some means of preventing conception may be mentioned consumption, mental degenerates, syphilis deformities and maternal decay. The elimination of conception in parties suffering with the first named disease would relieve all orthopedic hospitals of more than half their charges, while in the last mentioned the prevention of conception would give health and happiness to many a mother whose life and strength is needed to properly rear those whom she has already caused to be on earth.

The subject of preventive medicine presents many alluring fields for study, yet none can exceed in importance the successful carrying out of the object for which the minor surgical procedure prompted this paper. All good things meet with abuse and should a simple procedure for the prevention of conception be placed in this class it will likewise be abused.

Maryland Medical Journal, Sept. 1906.

On the Prophylaxis of Typhoid Fever.—By Dr. W. S. Thayer.

The Southern Clinic, September, 1906.

Pertussis.—Dr. J. R. Landers believes that when the disease has developed that calcium sulphate will inhibit action of the specific cause and consequently would saturate the patient with the remedy, and the disease will be materially influenced if one has a dependable and stable preparation. However, we would not rely on this remedy alone, but would supplement with other means to rout the disease. Clean out and disinfect the bowels that autotoxemia from this source may not become auxillary to other causes. Vasomotor disturbances, etc., should be corrected with acomtine veratrine, etc., as may be indicated. Slight phologic effect of atropine should be maintained, or instead of atropine hyocyamine may be used. However, hyocyamine is preferred more especially at bed time which given with codiene will materially hinder and even prevent cough from disturbing sleep. Aconitine has seemed best to control fever and congestion. To preserve vital force and function and maintain or improve resistance and recuperative power is important. If we improve tissue tone to a relatively normal balance by the use of strychnine the exhibition of nuclein will strengthen defensive power, maintain and improve resistant efforts, and aid and hasten recuperation and recovery so that sequelae, habit, cough and dangers invited by debility incident to untreated, unhindered or long drawn out cases do not supervene.

Other measures may be useful and other remedies may be, and no doubt are, quite adequate—as quinine to full physiologic effect—but without going into a measure of probable or possible usefulness we may say that the treatment as mentioned has not been disappointing; cases have been apparently modified and shortened, even aborted to the surprise of the laity grounded in the long held opinion that six weeks only could remedy.

The Southern Practitioner, Aug. 1906.

Harmful Intestinal Parasites in Man; with a Digression Relating to the Possibility of their Diagnosis by Physiological (or occult) Processes.—By Dr. W. F. Arnold, M. D., Surgeon U. S. A. (Retired).

The Texas Medical News, Sept. 1906.

Alcohol in the Treatment of Typhoid Fever.—Dr. W. O. Wilkes says that in the treatment of typhoid fever alcohol can be made to serve three useful purposes; first, externally as an evaporating lotion; second, internally as a food; third, internally and hypodermically as a stimulant.

Dilute alcohol makes a valuable cooling lotion for use in sponge baths for the reduction of fever. Even a small amount in the bath water will cool the fever more quickly than plain water, because of the more rapid evaporation.

Second as a food. It is a fact that "the use of alcohol is wholly unnecessary in any form for the use of the human system in health." Cases of low types of typhoid in which milk is badly borne is one of the conditions in which it is invaluable. It is easily assimilated, requires no preparation, and throws no effort upon the digestive organs. In reasonable quantities its combustion in the system is complete. A man in health can digest from one to one and a half ounces a day without any of it appearing in the excretions, showing that the system can burn up that quantity, deriving animal heat and energy therefrom, the combustion resulting like other foods in water and carbon-dioxide. In depressed states of the body very much larger quantities can be assimilated without toxic symptoms. Fever does not contraindicate its use; on the contrary the ingestion of alcohol tends to lower the temperature of the body in health, and this is still more marked in febrile states. It is not proper to give alcohol in the beginning of a case of typhoid, except in cases that are accustomed to its regular use. It should be held in reserve until needed. The extremes of life—infants

and the aged—are usually very much benefited by it.

Thirdly, alcohol as a stimulant; in flagging heart it undoubtedly materially aids the strychnine and other supporting agents used, and for this purpose it should be given in frequently repeated doses, gradually increasing the quantity to get the desired effect. In threatened heart failure one to two ounces of whiskey every hour is none too much.

The Southern Practitioner, Aug. 1906.

Conservative Surgery: or the use of External Applications in Cases of Doubtful Surgical Procedure.—By Dr. F. W. Hander, Beaumont, Texas.

New Orleans Medical and Surgical Journal, September, 1906.

Spinal Analgesia in Forceps Delivery: Report of a Case.—Dr. W. T. Richards reports the following case: Mrs. N. S., age 41, primipara; labor began May 18th, 1906, at 4 a. m. A midwife was in attendance. At 9 a. m. of the same morning the author was called in, because the patient seemed to be exhausted. Bag of waters had ruptured at 8:15 a. m. Patient was having pains about every five minutes, examination showed no progress in foetus. Pulse was rapid and small. Surface of body cold, but dry. On vaginal examination found head impacted in superior strait; anterior lip of cervix was swollen and very sensitive; bladder empty. On examination of patient's heart found an aortic obstructive murmur. This condition made a general anaesthetic dangerous. First used hot douches, scapalamine, morphine, cocaine to cervix. Tried to apply forceps without anaesthetic but failed. Ether and chloroform were both tried, but on each occasion the patient nearly died. As a last resort spinal analgesia was determined upon. Placed patient on her right side, injected ten units of a 4 per cent. solution of cocaine between the first and second lumbar vertebra at 10:15. Seven minutes later a vaginal examination caused no pain, and at 10:25 a pair of Tebsenreich forceps was applied and a live male baby delivered. As soon as the cord was clamped two yards of iodiform gauze was introduced into the uterus. This was expelled with the placenta one hour and sixteen minutes after injecting the cocaine. While applying the forceps patient said that she felt absolutely no pain. After delivery the pulse dropped from 155 to 120; it was fuller and more quiet. After delivery of the placenta the patient fell asleep and slept for two hours. There was no shock and no untoward symptoms. She progressed through an uninterrupted recovery and was up in ten days.

One feature that was of unusual and striking interest was the relief of excruciating backache less than five minutes after the puncture was made.

The American Practitioner and News, September, 1906.

Intestinal Perforation Following Typhoid Fever.—By Dr. J. W. Shoemaker.

The Mobile Medical and Surgical Journal, August, 1906.

Diagnosis and Treatment of Syphilis.—Dr. J. M. Austin believes that the following points should receive careful consideration at the hands of the physician:

(1) Determine whether there has been a sore, either genital or extra-genital, followed by eruption, alopecia and sore throat.

(2) The mouth, throat and nose should be carefully examined for lesions. Watch for perforation of the soft or hard palate, destruction of nasal septum or flattening of the nose, mucous patches, ulcers, and note the condition of the throat in general.

(3) Children ascertain if eruptions in first three or four months after birth, snuffles, etc.

(4) In women if abortion or miscarriage has been frequent.

(5) Examine genitals for initial scar, syphilitic atrophy, or enlargement of the testicles, leg and groin and body in general.

(6) Examine the bone for nodes or other lesions, the tibia and cranial bones being most frequently selected.

(7) Determine if there has been iritic adhesions of the eye.

(8) Watch for Hutchison's sign of teeth.

(9) Examine lymph glands, especially those of the groin and neck for universal, moderate enlargements and induration.

(10) The nervous system should be closely observed, the paralysis of a single cranial nerve being a very valuable symptom. The people should be taught that the disease is dangerous and the necessity of judicious prophylactic treatment. On the other hand the syphilitic should not be considered a leper, but should be classed among the unfortunates; treated not as a shameful disease, but as a disagreeable accident, and should not be considered a criminal until he propagates the disease by his negligence.

It has been chemically proven that the syphilitic process can gain such a tolerance for either mercury or iodide that the specific effect is lost. Hence the imperative need of intermissions or alterations in their employment.

The old idea that syphilis can be cured

in from 12 to 18 months is gradually going out. Four years, at least, as recommended by Fourinier would come nearer being the required time for a safe cure.

Louisville Monthly Journal of Medicine and Surgery, September, 1906.

Neuroses of the Intestine.—By Dr. Jacob Glahm.

Southern Medicine and Surgery, September, 1906.

Potassium Iodide vs. Nicotine.—Dr. W. E. Taylor says that when a man smokes or uses tobacco in any form for a long period of time the nicotine is not at once oxidized by the system, but is stored up little by little in the various tissues of the body. The skin, the bones, the connective tissue and certain organs absorb it just as a sponge absorbs water. So gradually is this done that the smoker never notices any ill effects from it at all. It becomes latent nicotine and has no effect upon the organism. The effect may perhaps be seen only on the skin, which becomes sallow and yellowish, and on the sclera, which is muddy and dirty. The action of potassium iodide on the body increases the secretions—particularly of certain glands—aids in the absorption of morbid products, promotes the elimination of waste materials and helps to rid the body of noxious substances—as some of the metallic poisons and nicotine. Under the action of the iodine the nicotine stored up in the skin and in the various tissues is liberated and emptied into the general lymphatic channels. It is now free to act just as so much new and fresh nicotine injected into the system would act. Differing only in that the smoker is in a way hardened to the action of small amounts of nicotine taken in day by day, but he is unaccustomed to this large amount liberated by the potassium iodide. It causes the glands to swell and induces an accentuation of all the symptoms which first bring the patient to the physician. The author reports two cases which illustrate this process.

In cases of syphilis when one finds a man who is a considerable user of tobacco and potassium iodide is prescribed in large and increasing doses it is possible—in fact easy—to get the toxic symptoms from nicotine when we do not wish it, or even when we may least expect it.

The Medical Recorder, September, 1906.

Malarial Infections.—By Dr. Preston Hunt.

Book Notices.

SECOND REPORT OF THE WELCOME RESEARCH LABORATORIES; Gordon Memorial College, Khartoum. Andrew Balfour, Director. The Department of Education, Sudan Government, Khartoum.

As this report so interestingly shows, the function of these Laboratories is to promote technical education, the study of tropical diseases, especially the infective diseases that are peculiar to the Sudan, to aid experimental investigations, to carry out such chemical and bacteriological tests in connection with water, food-stuffs and sanitary matters, and the testing and assaying of minerals, etc. This is a wide field and it seems to be well covered. It is bountifully illustrated in colors.

In the next report the Nile water examinations will be given.

COTTON; a book of 331 pages, by Charles W. Burkett, recently professor of agriculture in the A. and M. College of North Carolina, and Clarence H. Poe, editor of The Progressive Farmer, Raleigh, N. C. Published by Doubleday, Page & Co., New York. Price, net, $2.00. Sixty-three pages of photographs.

Within these two covers is complete information about the most remarkable product of agriculture in America; a subject of increasing interest as commercial conditions in the South improve. The crop that is now white to the harvest on the broad Southern acres, clothes millions of our own and foreign people, and this book helps to ihcrease our pride in the great staple that brought into our country last year more than $400,000,000. It is divided into four books: King Cotton, Its Realm and Subjects; The Cotton Plant, How It Grows; Marketing and Prices; and Manufactures and By-Products. It is of thrilling interest from cover to cover; it is thorough, thoughtful and shows ripe scholarship beyond technical lines. The authors prove conclusively that the South holds the monopoly—that Egypt and Asia and South Africa will never be felt as competitors.

TRANSACTIONS OF THE TWENTY-EIGHTH ANNUAL MEETING OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION: Held at Niagara Falls, May 31st, June 1st and 2nd, 1906.

The Transactions comes to us in its uniform binding; it has 347 pages and is a credit to Dr. J. E. Newcomb, New York City, who has so ably edited it. All those who are interested in laryngocological work should procure a copy.

TRANSACTIONS NEW HAMPSHIRE MEDICAL SOCIETY. This meeting was held at Concord, May 17-18, 1906.

The book presents a most pleasing appearance and has in it a large number of interesting papers. Dr. D. E. Sullivan, of Concord, N. H., is the untiring Secretary of the Society and his faithfulness is shown in the volume before us.

TRANSACTIONS OF THE AMERICAN GASTRO-ENTEROLOGICAL ASSOCIATION, held in New York April 24th, 1905.

The volume is a little late reaching us but is a valuable addition to the physician's library. Dr. Charles D. Aaron, of Detroit, is the efficient Secretary of this body, and this record is of the eighth annual session.

A TEXT-BOOK OF OBSTETRICS. New (5th) edition, thoroughly revised. By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. Octavo of 915 pages, with 753 illustrations, 39 of them in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $5.00 net; Half Morocco, $6.00 net.

This work is the result of twelve years of practice in gynecology in both its branches —obstetrics and gynecic surgery. During this period the author has served as consulting and attendant gynecologist and obstetrician in eight of the Philadelphia hospitals, and this training has fitted him in an especial manner for guiding students in this important branch of medicine. He has condensed the text as far as is practicable, so that within a single volume is presented information that will place it in the front rank of excellence. It is well worthy of careful study and will doubtless have a large sale.

ATLAS AND TEXT-BOOK OF HUMAN ANATOMY. Volume 1. By Professor J. Sobotta, of Wurzburg. Edited, with additions, by J. Playfair McMurrich, A. M., Ph.D., Professor of Anatomy at the University of Michigan, Ann Arbor. Quarto volume of 258 pages, containing 310 illustrations, mostly all in colors. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $6.00 net; Half Morocco, $7.00 net.

There can be no question as to the value of a good Anatomy as an aid to the acquisition and retention of correct ideas regarding the structure of the human body and the relation of its various parts. One should be able, after careful study, to call up a mental picture of any part, and volumes written will do less to fix this in the mind than a single accurate illustration; this is only less valuable than the actual dissection. In this English edition the nomenclature is essentially that proposed by the Basel Committee; in the section of Myology the Latin terms have been retained. The illustrations have been most carefully prepared and the work will be of great service in Medical science.

OBSTETRICS FOR NURSES. By Joseph B. Delee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Second Revised Edition. 12mo of 510 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $2.50 net.

Though this book is intended primarily for nurses, it will be helpful to the young physician; it is a treatise on actual obstetric nursing in addition to being, as the title indicates, Obstetrics for Nurses. The photographs were taken from actual scenes and the book is the result of lectures covering eight years, to nurses of four different training schools. Part I is devoted to the Anatomy and Physiology of the Reproductive System; Part II to Nursing during Labor and in the Puerperium and Part III to the Pathology of Pregnancy, Labor and the Puerperium. A beautifully glazed paper has been used in the preparation of this book and the mechanical part of it is in keeping with the thoroughness and interest of its contents.

SAUNDERS' POCKET MEDICAL FORMULARY. By William M. Powell, M. D., author of "Essentials of Diseases of Children"; Member of Philadelphia Pathologic Society. Containing 1831 formulas from the best known authorities. With an appendix containing Posologic Tables, Formulas and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetric Table, Dietlists, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia from Drowning, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, etc., etc. Eighth Edition, Adapted to the New (1905) Pharmacopeia. Philadelphia and London: W. B. Saunders Company, 1906. In flexible morocco, with side index, wallet and flap. $1.75 net.

The Johns Hopkins Hospital Bulletin says: "It is remarkable how much information the author has succeeded in getting into so small a book." It contains many hitherto unpublished prescriptions from distinguished practitioners.

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TABLE OF CONTENTS FOR NOVEMBER, 1906.

Original Communications.

A Case of Eclampsia, by Dr. N. D. MacAtan, Ocracoke, N. C., ... 247
Clinical Reports (a) Umbilical Fistulae; (b) Two Caesarean Sections, by W. H. Dixon, M. D., Edward, N. C., ... 238
Goitre, by Dr. Annie L. Alexander, Charlotte, N. C., ... 225
Incidental Observations on Hydrophobia, by David Furman, M. D., Greenville, N. C., ... 231
Marasmus, by E. H. Brooks, M. D., Reidsville, N. C., 243
Success in Pediatrics and How to Attain it, by E. A. Hines, M. D., Seneca, S. C. 247
Scarlatina, by Dr. Chas. G. Bryant, Roaring River, N. C., ... 250
Treatment of Acute Articular Rheumatism, by W. H. Anderson, M. D., Wilson, N. C., ... 241
Therapeutic Nihilism and the Treatment of Pneumonia, by N. P. Coppedge, M. D., Margarettsville, N. C., ... 228
Tuberculosis, by K. M. Ferguson, M. D., Southern Pines, N. C., ... 235
The Rational Treatment of Tuberculosis, by William Redin Kirk, Ph.G., M.D., Hendersonville, N. C., .. 252
The Treatment of Tuberculosis, by Arthur M. Guerard, M. A., M. D., Flat Rock, N. C., ... 254

Editorial.

A New System of Medical Teaching, ... 262
Chronic Myocarditis..... 261
Dr. W. E. Fitch..... 262
Longevity, ... 264
Prevention of Recurrence after Operation for Malignancy, ... 261
The Influence of Atmospheric Pressure in Disease, ... 263
The Digestion of Fat,..... 264
The Prophylaxis of Tetanus 265

Review of Southern Medical Literature. 265

Book Notices.

Atlas and Text-book of Human Anatomy, by Professor J. Sobotta, ... 272
A Text-book of Obstetrics, by Barton Cook Hirst, M. D., ... 272
A Desk Book of Errors in English by Frank H. Vizetelly, ... 278
Abdominal Operations, by B. G. A. Moynihan,..... 276
Chemistry, by John Attfield 278
Cotton, by Chas. W. Burkett and Clarence H. Poe, Raleigh, N. C., ... 271
Diet in Health and Disease, by Julius Friedenwald, M. D., ... 276
International Clinics, by Dr. A. O. J. Kelly. 278
Obstetrics for Nurses, by Joseph B. Delee, M. D.... 272
Prevalent Diseases of the Eye, by Samuel Theobald, M. D. 276
Second Report of the Welcome Research Laboratories, ... 271
Saunders' Pocket Medical Formulary, ... 272
The American Illustrated Medical Dictionary,..... 276
The Practice of Gynecology, by W. Easterly Ashton, M. D., LL.D.,..... 276
Transactions of the Twenty-eighth Annual Meeting of the American Laryngological Association,..... 271
Transactions New Hampshire Medical Society,... 272
Transactions of the American Gastro-enterological Association,..... 272
Transactions of the Medical Association of Georgia, . 278

Literary Notices.

An Experimental Government,..... 278

Abstracts.

Alcoholic Dextrins in Some Cases of Marasmus,..... 260
A Pointer Concerning Potass. Iodide,..... 260
A Septic Catgut,..... 280
Acute Leukemia in Infants 280
On the Early Occurrence of Adipocere, ... 259

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Mental Disorders of Pregnancy and the Puerperal Period.

Raw (Edin. Med. Jour.) bases his conclusions on the records of 102 cases of puerperal insanity. Sixty-eight of these were transferred to asylums according to the law at the end of three weeks; twenty-four were cured; eight died, and two are under treatment. In over sixty-two per cent. albuminuria was present; in several cases the albumin disappeared in a few days; in others it persisted for many weeks. In this series there were seventy-one cases of mania and thirty-one of melancholia. The cases cases of mania showed a tendency to recover more rapidly than those of melancholia. Only six of these cases were pregnant. The insanity of pregnancy generally develops between the third and seventh months and the symptoms are generally those of moral perversion, with melancholia and delusions of fear, suspicion and persecution. Insomnia is a persistent and troublesome symptom, and destructive tendencies are common. The treatment of this condition is largely expectant. In those cases where there is an hereditary tendency to insanity the prognosis is grave. In the six cases referred to above four recovered before delivery and two after. The treatment of this class of cases is that of ordinary mania or melancholia; the prognosis in most cases is favorable.

THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY. The New (4th) Edition. 2000 New Words. All the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry and kindred branches; with over 100 new tables. By W. A. Newman Dorland, M. D. Fourth Revised Edition. Octavo of 836 pages, with 293 illustrations, 119 of them in colors. Philadelphia and London: W. B. Saunders Company, 1906. Flexible Morocco, $4.50 net; thumb indexed, $5.00 net.

The numerous additions to the vocabulary of medical science have made a new edition of this book necessary. Since the appearance of the third edition the author has been engaged in a revision of the text and in making careful research for the new words that are continually coming into being; more than 2000 new words have been defined and improvements made throughout the text. Six new colored plates have been added, illustrating Appendicitis, Diphtheria, Gall-stones, Measles, Nephritis and Leishmann-Donovan bodies. The latter is copied from the original plate of Major Donovan. The binding is such that the book can be used daily; it is in compact form, with durable cover and the typography is clear. In addition to the ordinary Dictionary matter, a large amount of information is given in tabular form.

PREVALENT DISEASES OF THE EYE. By Samuel Theobald, M. D., Clinical Professor of Ophthalmology and Otology, Johns Hopkins University. Octavo of 551 pages, with 219 text-illustrations, and 10 colored plates. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $4.50 net; Half Morocco, $5.50 net.

The author evidently has in mind the well-worn proverb, "A little knowledge is a dangerous thing," as he has not encouraged the general practitioner to rely upon the ophthalmoscope as a means of diagnosis, but especial pains have been taken to describe fully such aids to diagnosis as will prove helpful and such measures as the practitioner may employ with advantage. The more frequently met diseases of the eye are dwelt upon; the simpler operations are described in detail. The book is a concise description of the commonest maladies of the eye designed to meet the needs of the non-specialist. In this field it will be exceedingly helpful and will be warmly welcomed.

ABDOMINAL OPERATIONS. By B. G. A. Moynihan, M. S. (London), F. R. C. S., Senior Assistant Surgeon at Leeds General Infirmary, England. Second Revised Edition, Greatly Enlarged. Octavo of 815 pages, with 305 original illustrations. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $7.00 net; Half Morocco, $8.00 net.

It has been said of Mr. Moynihan that in describing details of operations he is at his best; this, his latest work, gives in most exact language not only the actual *modus operandi* of the various abdominal operations, but also the technique of preliminary preparation and sterilization; complications, sequelae and after-treatment are presented in the same clear-cut style as the operations themselves. The illustrations were drawn under the author's personal supervision and serve their purpose in illustrating the various steps described. Only those operations that are common to both sexes are treated in this volume.

THE PRACTICE OF GYNECOLOGY. A Text-Book on the Practice of Gynecology. For Practitioners and Students. By W. Easterly Ashton, M. D., LL. D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Third Edition, Thoroughly Revised. Octavo of 1096 pages. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $6.50 net; Half Morocco, $7.50 net.

This is a new departure in medical text-book making. The author takes up each procedure necessary to gynecological work step by step, the student being led from one to another just as in studying any non-medical subject. The author not only tells what to do but how to do it. The illustrations are clear and satisfactory; details are gone into with great satisfaction; each organ is examined carefully before describing its diseases. There are one thousand and forty-six line drawings made especially for this work under the author's supervision, from living models, dissections and the operative technic of other authors. The changes that have been made in this edition are the result of later experiences of the author.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M. D., Clinical Professor of Diseases of the Stomach in the College of Physicians and Surgeons, Baltimore; and John Ruhrah, M. D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons, Baltimore. Second Revised Edition. Octavo of 728 pages. Philadelphia and London: W. B. Saunders Company, 1906. Cloth, $4.00 net; Half Morocco, $5.00 net.

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400 shares	40.00 cash or	5.00 cash and	7.00	per month for 5 months
500 shares	50.00 cash or	10.00 cash and	8.00	per month for 5 months
600 shares	60.00 cash or	10.00 cash and	10.00	per month for 5 months
800 shares	80.00 cash or	10.00 cash and	14.00	per month for 5 months
1,000 shares	100.00 cash or	20.00 cash and	16.00	per month for 5 months
2,000 shares	200.00 cash or	40.00 cash and	32.00	per month for 5 months
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This second edition of this valuable work has been thoroughly revised and considerably enlarged; especially is this true in the section upon salts. The aim of the book is entirely practical. In it is given a concise account of different foods, their composition and uses, while the principles of diet, both in health and disease, are set forth with great clearness. It can be used as a reference book by the busy practitioner, or a text-book for the medical student.

The book is dedicated to Dr. Osler as a slight token, says the author, of appreciation of the encouragement he has always given the medical profession. It is a most excellent treatise and is issued in a manner that is worthy of its importance.

CHEMISTRY: General, Medical and Pharmaceutical, including the Chemistry of the U. S. Pharmacopœia. A Manual of the Science of Chemistry and its Applications to Medicine and Pharmacy. By John Attfield, F. R. S., M. A., Ph.D., F. C. S., etc., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. New (19th) edition, specially revised by the Author to accord with the New U. S. Pharmacopœia, edited by Leonard Dobbin, Ph. D., F. I. C., etc., Lecturer on Chemistry in the University of Edinburgh, etc. 12mo, 760 pages, illustrated. Price: cloth, $2.50, net. Lea Brothers & Co., Philadelphia and New York, 1906.

The revision of Attfield's Chemistry was confided by the author to Mr. Leonard Dobbin, of the University of Edinburgh and examiner in Chemistry on the Board of Examiners for Scotland of the Pharmaceutical Society of Great Britain.

The work has been brought thoroughly up to date and to accord with the most recent Pharmacopœias of the United States and of Great Britain. The original plan of the book has been strictly adherred to, as seventeen large editions in the United States and eighteen in Great Britain are an evidence of the approval of the professions of Medicine and Pharmacy in the two great English-speaking nations of the world.

The author's ideal has been to produce a Manual of Chemistry for Medical and Pharmaceutical students, one in which not only the science of Chemistry is taught, but in which the chemistry of every substance having interest for the followers of Medicine and Pharmacy, at more or less length, and in proportion to its importance and its position in relation to the leading principles of Chemistry, is set forth with all attainable exactness. The extent to which he has realized this ideal, he leaves to others to decide.

A DESK BOOK OF ERRORS IN ENGLISH: Frank H. Vizetelly. The Funk and Wagnalls Company, New York City. 75 cents net.

The average worker—and most of us are average—would greatly improve his speech if he would keep this little ready reference book on his desk, and give it thoughtful attention. We need once in a while to take stock and see what words we are using that grate on cultured people—junk words which will accumulate in well-regulated vocabularies. One's independence of thought and individuality should not be hampered by mere rules, but there are errors that come close to vulgarisms; the language of the street has become such a universal tongue that pure diction is almost an unknown quantity.

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This Journal has so often expressed its appreciation of this valuable series that there seems little left to say of this issue, except that it is fully up to the high standard of excellence set, both by the editors and the publishers.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA: In its Fifty-Seventh Annual Session, held at Augusta, Georgia, April 18th, 1906.

Not only are the papers given, but in most instances the full discussion that followed the reading of the paper, thus bringing to the book-shelf the benefit of the meeting and the ideas expressed. The mechanical work in this issue is extremely good and this adds much to the pleasure with which it is received, and is testimony to the care given the work by the efficient Secretary-Treasurer, Dr. Louis H. Jones, of Atlanta.

An Experimental Government.

In New Zealand they are trying to equalize wealth. Mr. Russell says of the New Zealand Government in his "Soldiers of the Common Good," in the November Everybody's:

"Many of the ideas that they have since

DIPHTHERIA

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XXXVII

THIRTY-SEVEN years ago, A. H. Hassell, M.D., F.R.S., President of the Royal Analytical Association, London, analyzed Colden's Liquid Beef Tonic, and gave it his official approval:

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put into practice were very vague with them when they began; but one thing seemed clear enough. They believed that most of the evils of the world resulted from the uneven distribution of wealth, and that they ought to do something to help the men that were getting too little to get more. A primitive way to help was to keep them in good physical condition: so the campaign of the new government opened with bills to improve health. Wherever two or more persons were employed, was the sweeping declaration of these measures, there must be adequate light, fresh air, approved sanitation, and ample fire-escapes. If meals were eaten upon the premises employers must provide dining-rooms with tables, chairs, and facilities for heating water, so that there should be no more eating of cold luncheons from tin buckets, while seated upon work-benches. Inspectors were provided to see that these regulations were strictly enforced, and heavy penalties were laid upon employers that neglected them. Working men were protected in other ways. For the first time in New Zealand they were allowed to file mechanics' leins upon an owner's property in default of payment by a contractor, and the laws about employers' liability for accident were amended so as to give an injured workman a chance to recover damages. Previously such laws had been devised, as they generally are with us, to enable the employer to dodge his responsibility."

Abstracts of the Leading Articles of the Month.

Enlargement of the Pelvic Basin.

Bue (Le Nord Med.) discusses the relative value of symphyseotomy and pubiotomy for increasing the pelvic diameters in labor. The advantages of Gigli's operation are anatomical. There are no important structures in front of the pubic rami, only the ends of the tendons of the abdominal muscles and the pectineus. All are so attached that the section does not interfere with their integrity. On the posterior surface are only the ligamentous fibers that support the bladder, and the vesical plexus. The further one gets from the median line the less danger there is. The lower border has the corpus cavernosum of the clitoris and its veins, which may cause considerable hemorrhage that is easily controlled by pressure. The operation is very simple. With Doderlein's modification, by which it becomes almost subcutaneous, the danger of infection is very slight. Similar hemorrhages may occur in symphyseotomy as well as lacerations of the vaginal walls, but they rarely give trouble. Infection is the bane of symphyseotomy and the opening of a

joint adds to its seriousness. Bladder troubles also occur after symphyseotomy which are absent after pubiotomy. Inability to walk is exceedingly rare. In pubiotomy the callus forms very rapidly and walking is perfect even with fibrous union. Practiced under the best conditions the author believes that symphyseotomy is no more dangerous than pubiotomy. Both processes increase all the diameters. No more than one centimeter of increase is to be expected in the promonto-pubic diameter. Neither process is applicable to a pelvis with a promonto-pubic diameter of less than seven centimeters. In asymetrical pelves the lateral section is to be preferred. Gigli's operation is less dangerous in multiparæ and in flat pelves: in the primipara or the woman with a generally contracted pelvis there is always danger of tearing the soft parts. Some operators consider pubiotomy an easier and quicker operation, since there is no middle line of cartilage to be sought, and no false route that the instrument can take, and the chain saw acts rapidly. The author has done symphyseotomy with the chain saw and finds it as rapid as pubiotomy. Its use simplifies the technique of symphyseotomy wonderfully. The solid advantages of pubiotomy are less hemorrhage, less tearing of soft parts and less danger of urinary complications.

A Septic Catgut.

Keren (British Medical Journal) reports the results of investigations which he has carried out on the subject of aseptic catgut. The author says that all the methods adopted up to the present fail to give completely satisfactory results, and therefore he has attempted to find a new method which will lead to the introduction of a permanently sterile aseptic catgut which is ready for use. The writer says that such a catgut should be sterilized without the use of antiseptics, should not contain any chemical substances which might transude into the tissues and harm them, should be firm and elastic, and should be put up in such a way that its fitness for use does not deteriorate with time. In order to insure the last-named point, he found it necessary to make a special glass tube. The tube, which he describes in detail, allows of the introduction and twisting of the gut, without it being touched by hand. The tube narrows above to a thin neck, above which it has a small bulb, and again constricts. The end of the gut is knotted several times, and the knots are allowed to drop back as far as the bulb. The sterilization gave him much more trouble than the tube did. At last he found that the vapor of water-containing alcohol was capable of absolutely sterilizing the catgut after about eight minutes. He places the tubes containing the rolled-up catgut in a wire basket, which is of the same circumference as the alcohol vessel. The latter is made of copper and contains sufficient 70-per-cent. alcohol to supply all the tubes, and the whole apparatus is then covered hermetically in with a hood, containing the tube for the cooler and a thermometer. The alcohol is then heated up to about 79 deg. C., and kept at this temperature for twenty-five minutes. The tubes are then sealed up below, and then from one to three per cent. of glycerin and absolute alcohol is filled into a cup from above. The upper end is then sealed up, and lastly the sealed tubes are again heated for one hour to 103 deg. C. Catgut prepared in this way is absolutely sterile and reliable. He has tried the method with infected material and has subjected it to a number of severe tests, and finds that the process is satisfactory. The author describes his test experiments. Lastly, he describes a special apparatus which he has devised to keep opened tubes in without risking an infection. He says that catgut prepared in this way is about half the price of ordinary sterilized catgut in the market.

Acute Leukemia in Infants.

Acuna (Arch. de Mal des Enf.) states that acute leukemia is rare in infancy and childhood, although it may appear in the first months of life. Children are five or six times more rarely attacked than adults. Frequency increases as puberty is approached. The symptomatology is often defective and the diagnosis difficult, and to be made only by habitual blood examination, and the study of the hemoleukocyte formula. Its progress is very rapid in the child. There is a hyperacute form lasting not more than fifteen days, an acute form lasting eight weeks, and a subacute form lasting five or six months. The principal characteristics are swelling of the gland and spleen, hemorrhagic diathesis, acute fever, sudden onset, profound intoxication, and short duration. He describes two cases, one of a leukemic lymphocythemia with rapid and intense course, in which the white blood corpuscles increased in number with the progress of the disease, while the glands, liver and spleen were only slightly swollen. The author calls this hyperacute leukemia approaching the hemorrhagic type. The second was a leukemic lymphocythemia from the beginning, with general lymphoid hyperplasia. There are forms intermediate between these two. Acute myelocythemia is also found in infants, although it is rare. Aside from gangrenous swelling of the mouth and blood examination we have no means of diagnosis early in the disease.

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ST. LUKE'S HOSPITAL is personally conducted by DR. STUART MCGUIRE for the exclusive use of his private patients. It is located on the corner of Grace & Harrison Streets, in an elevated and healthy section, and is of convenient access to all parts of the city by means of the street car service. The building was erected in 1900 and enlarged in 1905. It represents the best efforts of architectural skill to meet the demands of a modern sanatorium and now has a capacity for 62 patients. The rooms are furnished with every comfort consistent with perfect sanitation. Some of them have private baths. The wards are large, light and airy. The service and cuisine are the same throughout the building, but the cost of a bed, board, and general nursing varies from $10.00 to $25.00 per week according to location. No contagious diseases, cases of insanity or colored patients are received.

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Miscellaneous.

The Ninth Commandment in Medical Journalism.

Not since Dean Swift wrote the immortal "Battle of the Books" has there been such a delightful interchange of compliments as those now appearing simultaneously in the New York Medical Record and the Journal of the American Medical Association. The fulminations are so lurid that a looker-on is tempted to credit each with that highest form of humor—the unconscious. The Record should not forget that Cæsarism is the outcome of that much-misunderstood aphorism—Liberty, Equality, Fraternity. If we have bosses in other walks of life—and what observer can gainsay this?—why should an association that wields the power of the American Medical be exempt? A boss is a peculiarly American institution with no counterpart elsewhere. He rides the highest crest of universal suffrage, his actions are unquestioned by his supporters and admirers; in fact, his exaltation, sometimes imagined, at other times exaggerated, is prone to convert amiability and suavity into arrogance and aloofness.

The New York Medical Record seems to be oblivious of this when, editorially, it demands with a childishness remarkable in this age of muck-raking, "that the policy of secrecy in the management of the Association be done away with" (Sept. 15). The editorial in question is an expression of great kindliness on the part of the writer, who is moved to see extenuating circumstances for past misdemeanors. Could charity be better expressed, and belief in the triumph of greatly wronged innocence be better voiced, than in the following propitiatory lines: "The Medical Record has believed and has repeatedly declared its belief in the personal honesty of the officials of the association * * * * We are rejoiced to learn that those in control of the Association have at last been brought to our way of thinking, and, if they carry out loyally the promise of reform which they have now made, they will have the cordial support of all the members whose servants they are." (Sept. 15). A week later (Sept. 22), we note a sad decline in Dr. Stedman's buoyant tone, for the Journal published a most exhaustive attack on the Record the day Dr. Stedman evinced his extraordinary enthusiasm. Instead of the Record seeing a cloudless sky auguring for reform and general satisfaction, it sees portentous clouds, fearlessly calls the Journal the instigator of falsehoods, and advises the Editor-Secretary to a closer application of the "Ten Commandments with the ninth underscored, and see that he, or whoever writes the editorials, observes its admonition in his public utterances." Simultaneously the Journal makes recriminations, and, prompted by malice, attacks the probity of William Wood & Company. "In the commercial reports William Wood & Company, Medical Publishers, are rated at a pecuniary strength of from three hundred to five hundred thousand dollars," splutters the Journal. This piece of emotionalism is so convincing of William Wood & Company's rascality and the sublimated uncommercialism of the Journal that comment is unnecessary. Any adverse criticism of a publisher is a superfluity we condemn. The history of the trials and tribulations of authors has taught us to respect those superior judgments who decide the fate of a literary aspirant. A publisher who has attended strictly to his onerous duties and has accumulated $500,000.00 by refusing that which is poor stuff and publishing only gems of science, must needs be a clever, not to say a very good man. It is the manner of the day to deride the publisher for grave mistakes in judgment, but though we can lay at his door the indisputable fact that Edward Fitzgerald, the translator of Omar Khayyam, was turned down seventeen times, we must admit that this apparent heartlessness has worked weal for humanity by stemming the tide of useless and inane books. And who will be temararious enough to deny the rare discrimination shown in William Wood and Company's list of publications! As for the controversy, the smug self-satisfaction of the Journal until the criticism of the Record aroused it from its pleasant couch of security was a picture of the rare qualities of optimism. In the words of Dr. Pangloss, in Voltaire's *Candide*, the Journal thought "all is for the best in this best of possible worlds." Optimism unalloyed is a charming quality to possess; it takes a joyful survey of the ills and trials of mankind, its indifference is quite callous, and finally it allows the individual to lumber on from year to year with kind thoughts, kind words and unruffled spirits. On the other hand, optimism, when bolstered up by bossism, seems to be completely sensitized, for a mere pin-prick would appear to cause much agitation. Is the belligerent attitude of the Journal indicative of a combination of the above qualities, causing the belligerency to be the mere sputter of an over-excited old lady? Is the Record in the right to demand the veil to be torn away from the door which leads to that inner room beloved of all financiers on account of its simplicity of furniture and multiplicity of methods? Who will answer these pertinent questions? In the meantime, the controversy, having begun mildly some months back, is deteriorating into personalities and has the dignity and versimilitude of what Philip Massinger wrote some three hundred years ago, in his play, "The Virgin-Martyr": "I stole but a dirty pudding, last day, out of an alms-basket * * * and the peeking, chitty-face page hit me in the teeth with it."—Interstate Medical Journal.

Dr. F. E. Daniel.

Dr. F. E. Daniel, the veteran President of the American International Congress on Tuberculosis, is one of the ablest and best equipped physicians of not only his own State, but of the Southwest. As a medical man he is in the front rank; as a medical journalist he is without a peer in the great South and Middle West. Since he first took up the lance in conflict with tuberculosis he has been in the forefront of the battle. He was the first vice-president of the American International Congress on Tuberculosis which met at St. Louis in 1904.

He made a gallant and a grand fight there and helped to make that occasion the splendid success it won in that city.

His selection as president of the coming Congress was the natural sequence of the retirement of Dr. E. J. Barrick, who made a superb and safe leader in that campaign, and who aroused such interest and ardor in the Dominion of Canada during all the struggle of the movement with which he has been identified since 1901, having his whole soul and strength in it.

Dr. Daniel is the editor of the Texas Medical Journal, which is a great power in the Southwest, and has won the place it holds in the confidence of the medical profession.

Its editor had hoped to see a national medical organization against tuberculosis formed that should be representative of the medical profession of the American nation.

* * * * * * *

Dr. Daniel deserves the aid and co-operation of all the professions and the abler men of his own profession in the work of the Congress over which he is to preside.

He believes "preventive legislation" to be the keynote and the cornerstone of immediate conflict, the education of the masses of our people and of all the professions in an effort which, while it is not a medical question *per se*, and is in all respects a medico-legal question, in the main that it needs the

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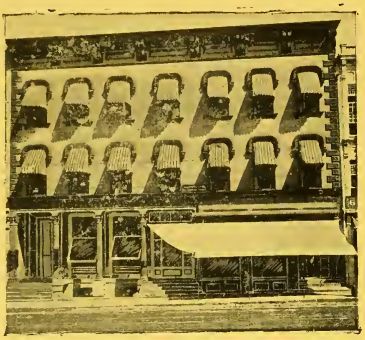

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best brain, skill and energy of the great medical mind of the nation to hold up his hands in the coming Congress.—Editorial in Medico-Legal Journal.

Consistency.

A short time ago, after the sudden conversion of the editor of the Journal of the American Medical Association, this gentleman, in his endeavor to kill off the independent medical journals, established the rule that none should be regarded as "ethical" which admitted to its advertising pages any proprietary remedy of which he disapproved. A full list of these tabooed preparations has never, to our knowledge, been published, but several have been mentioned from time to time as especially worthy of condemnation; the Medical Record has been held up to public scorn because it has admitted some of them to its advertising pages, and the physicians of the country have been urged to have nothing to do, either as contributors or subscribers, with any journals in which these preparations are advertised. There is a most readable monthly journal published in Chicago, The Clinical Review, which, like all the independent medical journals of the country, as well as many of the official organs of the State societies, accepts the advertisements of a number of proprietary remedies anathematized by the journal of the Association; in the current issue of the Review we have counted eleven of these preparations, among them the very particular *bete noir* of the editor of the Association Journal. There is nothing especially worthy of remark in this fact, but what is perhaps peculiar is that the list of collaborators of this "unethical" journal contains the names of several officers of the Association. Among them, to mention only three, we find M. L. Harris, Secretary of the Board of Trustees under whose direction the Journal of the American Medical Association is edited; Frank Billings, Treasurer of the Association and the vociferous foe of all nonpharmacopeial remedies; and William J. Mayo, President of the Association. We have no fault to find with this; the names of these gentlemen and of many others prominent in the Association are printed conspicuously on the front cover of The Clinical Review, and the journal is worthy of their support and approval. But some who do not know the true inwardness of this so-called reform may wonder at the inconsistency of those high in authority and may not be able to understand why one particular journal should be selected for reprobation for doing something which these officials of the Association, with what appears to be cynical indifference, publicly approve and sanction in the case of other journals. We say "other journals" advisedly, for The Clinical Review is not the only periodical, carrying "unethical" advertisements, which is edited and supported by officers of the Association. —Medical Record.

Dr. Baketel.

Dr. H. S. Baketel, manager of the advertising department of the Antiphlogistine Co., of New York, while on a Southern tour making the acquaintance of the Southern medical editors, honored our office with his pleasing, genial face. The doctor is one of the brainiest and brightest men we have ever met. One of the strong points of his professional and personal character is his thorough appreciation of the fact that the essence of all law is crystalized common sense, and, in addition, he is as straight as a die, as true to his convictions and to his duties as the needle to the pole. He is possessed of a great knowledge of general literature and has a full fund of general culture. Having for years been a general practitioner, he is thoroughly conversant with the therapeutic applications of Antiphlogistine, and he, like other wide-awake, progressive physicians, appreciates the therapeutic properties of Antiphlogistine.—Gaillard's Southern Medicine.

A Good Remedy in Many Conditions.

Thos. G. Rainey, M. D., L. R. C. P., Resident Physician British Medical Institute, Atlanta, Ga., in a recent article states that the combination of drugs, antikamnia and codeine in the form of "antikamnia and codeine tablets," which has been so largely used for the control of cough, is also being successfully employed, to a large extent, in the treatment of nearly all affections of the respiratory tract, which are accompanied by dyspnoea and spasm, namely: Bronchitis, laryngitis, phthisis, whooping cough, hay fever and grippal affections. In cases in which the patients were suffering from the severe attendant pain of these diseases it was found that this combination acted most satisfactorily. Each tablet contains 4 3-4 grains of antikamnia and 1-4 grain sulph. codeine. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva. In the various neuralgias, and in all neuroses due to irregularities of menstruation this tablet affords immediate relief, and the relief is not merely temporary and palliative, but in very many cases curative. The dose most satisfactory is one tablet every half hour until four are administered.

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Headache of Nasal Origin.

Lack (The London Practitioner) says on investigating the cause of headache every local source for trouble should be carefully sought for. Among the local causes of headache, affections of the nose occupy a prominent position. It is important to bear in mind that patients frequently seek relief for headache alone, and may complain of no symptoms distinctly implicating the nose. Under these circumstances the nasal disorder may be overlooked. The author also emphasizes the fact that even if the headache is associated with nasal trouble, a thorough systemic general examination should not be omitted. Headache resulting from nasal affections may vary much in character, in site and degree. It may be constant or periodic. It may be described as a dull aching sensation, or as a sharp and stabbing pain, or as a feeling of heavy pressure. It may be localized at the frontal region, to the vertex or to the back of the head; it may radiate all over the head, even true hemicrania may be met with. There is often no characteristic feature indicating its nasal origin. Generally the pain in the head associated with nasal disease is more circumscribed and continuous than headache due to other causes. It often seems to start from, or radiate into the nose, and is often neuralgic in character. The following nasal conditions are given as causes of more or less distinguishable forms of headache:

1. Headache resulting from nasal obstruction. This being especially common in children suffering from adenoids and in adults suffering from nasal polypi or hypertrophic rhinitis. In adults headache is more common in disease of the ethmoidal region than in disease of other parts. The pain in this condition is usually of a dull aching character occurring chiefly on waking from sleep and wears off during the day.

2. Referred pain from nasal pressure. A typical example of this form of headache is that due to enlargement of the middle turbinate. The pain is referred chiefly to supra-orbital region of the same side, whence it may radiate down the nose, into the eyes and across to the opposite side. When very severe it is accompanied by pain on pressure over the supra-orbital region and over the nasal bone. This pain is often associated with suppuration in the frontal sinus, ethmoid or antrum, but occurs independently and generally disappears when the anterior head of the middle turbinate is removed. The periodicity of this pain is due to an intermittent swelling of the mucous membrane covering the bone. Large spurs or deviatians of the septum pressing on the turbinates are frequent causes of headache.

3. Headaches resulting from acute or chronic inflammatory conditions of the accessory sinuses. These headaches are usually periodic. The pain commences in the morning and gradually increases for two or three hours. When most intense, discharge begins to flow from the nose and the pain slowly subsides. When due to disease of the frontal sinus the pain is usually most intense on top of the head towards the front part of the frontal bone. There may also be pain over the frontal region radiating into the eyes. When intense, the pain is accompanied by superficial tenderness over the posterior part of the frontal bone and over the innermost part of the orbit. Pain due to disease of the sphenoidal sinus is readily referred to the back of the head, radiating down the back of the neck. Pain due to ethmoidal disease may be referred to the frontal region or situated deep behind the eyes. Pain due to antrum suppuration is more often situated over the malar bone. All these forms of headache may be accompanied by pain in the supra-orbital region, due to an associated enlargement of the middle turbinate.

Marmorek's Tuberculosis Serum.

Roever (British Medical Journal) records his experience of Marmorek's anti-tuberculous serum, which extends over twenty-five clinical cases. After briefly reviewing the method of preparation, the dosage, and methods of application, he states that the cases were all subjected to a thorough and excellent open-air, dietetic treatment, but with the exception of morphine and acetate of ammonium no other medicament was given. He treated sixteen cases of pulmonary tuberculosis—eleven by subcutaneous injection and five with rectal injection. Of the former four, and of the latter one, did well, while three cases in each class were unaffected, and four cases in the subcutaneous injection class and one in the rectal class did badly. The histories of these cases are given in some detail, and a particular point is made of the immediate effect of the injections; four cases of glandular tuberculosis, one of cutaneous, two of bone tuberculosis, and one each of tuberculosis of the bladder and of the bladder and kidney were also treated. Temperature curves and weight curves are further appended. In general the injections were well tolerated, and the local reaction varied considerably in the different cases. He gave 452 injections in all, and did not experience a single abscess. He prefers the subcutaneous method, but it has been proposed to apply the serum by the bowel every day, so that a larger quantity of the material may be introduced, it being found that rectal injections do not cause a general reaction.

He says that from the clinical histories it is by no means clear whether the serum is responsible for the improvements, but he is inclined to regard the improvement in cases of surgical tuberculosis as

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being produced by the serum. However, from the clinical side alone he would have been guarded in expressing an opinion were it not for a control which he carried out on the condition of the blood of each patient. The author points out that Arneth has demonstrated that if one stains the neutrophile leucocytes, and notes the number of cells with one, two, three, four, and more nuclei, one can form a valuable opinion as to the condition of the blood. One should count 100 such cells, and tabulate them according to the number of nuclei. Damaging processes always first attack the cells with four or five nuclei, and only later are those with three nuclei attacked, so that in the much-damaged blood of a severely infected patient one will find a high percentage of cells with one and two nuclei, while in the healthy condition the first class is represented by 5 per cent. and the second class by 35 per cent. The cases were subjected to such a blood control, and he finds that the results tally with the clinical course. Next he considers how the blood cells were directly affected by the individual injections. The impressions which he received were in favor of the serum having assisted in the improvement and cure, especially in the cases of surgical tuberculosis, but he thinks it necessary to reserve a final opinion until a large series of cases has been subjected to a minute blood count. He thinks it will be necessary to give the serum in larger quantities, and to continue it for a longer time, if one is to obtain the maximum effect.

Pure Milk for Infant Feeding.

An editorial in the Journal American Medical Association December 9, 1905, entitled "Some Objections to the Pasteurization of Milk" is of much interest to those physicians concerned with the problem of securing pure milk for infant feeding. We excerpt the following as being of special interest:

"Anyone who will take the trouble to follow the newspaper reports of our large cities will find that in most of them there appear from week to week accounts of the fining of milkmen or dairy companies for putting on the market milk which shows evidence of chemical or bacterial abnormalities or which contains some kind of preservative. A visit to the dairy farms in the neighborhood will usually make it apparent why such evidences of uncleanliness are so commonly found. The average dairyman knows little, and apparently cares less, about the steps necessary to insure clean milk, and the average dairy employe does not appreciate them at all."

While the conditions under which all city dairies are operated may not be as bad as the above statement would indicate, it is a fact that pure milk—safe milk for infant feeding—can be secured only with great difficulty in most cities, and even the smaller communities are often no better served.

It is obvious, however, that cow's milk must constitute our main dependence in substitute feeding of infants. Ordinary sterilization does not simplify the problem, as the milk is thus rendered more difficult of digestion; pasteurization is not effective; the large amount of cane sugar in "condensed milk" is almost certain to cause derangement of the stomach and bowels. The solution of the ques-

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tion now seems to point to the use of a class of products commercially known as "evaporated milk."

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Therapeutic Applications of Lumbar Puncture.

Stewart (Edinburgh Medical Journal) says that lumbar puncture was originally introduced by Quincke for the purpose of relieving intracranial pressure in tuberculous meningitis. This it does for the time, though it cannot, of course, be more than a palliative measure. In one case of the writer's, however, the patient, a young man, who was comatose and apparently moribund from tuberculous meningitis, regained consciousness for a day, after the withdrawal of twenty-two cubic centimeters of cerebro-spinal fluid. At the time of puncture the fluid was allowed to flow until the increased intrathecal pressure fell to normal. The importance of this procedure, not only from sentimental but possibly on medico-legal grounds, is obvious.

In intracranial pressure due to other causes, as, for example, in cerebral tumors, which are inoperable or inaccessible, lumbar puncture is sometimes of distinct benefit, by diminishing the pressure and thereby relieving headache, vertigo, and other symptoms. Hitherto it has been the custom to trephine the skull as a palliative measure to relieve intracranial pressure and to diminish optic neuritis. But lumbar puncture is quicker, simpler, and less dangerous than a major cranial operation. The writer has performed it in three cases of intracranial tumor in which the symptoms pointed to deep-seated cerebellar disease. In all of them the headache and vertigo were markedly relieved for several weeks after the puncture, and an opportunity was afforded of studying the patient's local symptoms with a view to removal of the growth. In intracranial growths, however, we must be careful not to withdraw too large a quantity of cerebro-spinal fluid, lest sudden diminution of pressure cause a hemorrhage into the tumor (a result, by the way, which sometimes occurs after a palliative trephining). In a case recorded by Masing this actually occurred; but in his case the fluid was allowed to run for a quarter of an hour, and no less than thirty cubic centimeters was withdrawn. The writer has in a single lumbar puncture with the removal of less than ten cubic centimeters of fluid relieved the condition permanently in several cases of persistent tinnitus and giddiness of many months' duration. We must, of course, be careful to eliminate all the ordinary causes of tinnitus and giddiness, aural or otherwise, before resorting to this treatment.

In fracture of the base of the skull, coma may be relieved in a remarkably short time by the withdrawal of cerebro-spinal fluid. In a patient sustaining a carriage accident a lumbar puncture was followed by rapid improvement. The procedure may be repeated several times on successive days, if necessary.

Cases of uremic coma and convulsions are often relieved in a striking manner by lumbar puncture, and in several instances the patient's life has undoubtedly been saved by this means. For example, McVail records two cases of acute nephritis in which, in spite of energetic treatment by purgatives, hot air baths, and pilocarpine to induce free perspiration, coma and convulsions supervened. Lumbar puncture was performed; six or eight drachms of cerebro-spinal fluid was withdrawn, and within three or four hours the coma passed off, the convulsions ceased, and both patients ultimately recovered completely. Cases such as these raise the question as to whether the headache, coma and convulsions in nephritis are really caused entirely by "uremic poisoning" of the brain centres, or whether they may not be due largely to a sudden increase of intracranial pressure—part of the general edema.

Again, in cases of tetanus we know that the tetanus poison has a selective action on the motor nerve cells of the spinal cord and brain. And therefore, in addition to removing the tetanus bacilli at the site of inoculation, by excision of the original wound, we endeavor also to neutralize the toxin by means of antitoxin. This is sometimes administered hypodermically. But it is much more efficacious, as Roux and others have shown, if injected into the cranial cavity through a small trephine opening; and some remarkable recoveries have followed this method of treatment. But the procedure is not free from danger. In one case at least the patient died of cerebral abscess at the site of the trephine opening eight weeks afterward, long after all symptoms of tetanus had disappeared. It is easier and better to administer the antitoxin, with perhaps the addition of betaeucaine and morphine, by means of a lumbar puncture needle.

Strychnine poisoning is also successfully treated with intraspinal administration of eucaine. It may be necessary to give a general anesthetic before the first intra-spinal puncture to relax the opisthotonos.

Within the last few years injection of cocaine or of eucaine by lumbar puncture has been a somewhat popular procedure among surgeons, particularly in France, to induce spinal anesthesia for the purpose of doing operations on the lower limbs or the lower part of the trunk. The patient in these cases remains conscious throughout the major operation. Such a procedure, however, should be reserved for very special cases, since, from the patient's point of view, complete unconsciousness is preferable whilst an operation is being performed on his anesthetic legs. Moreover, there is a risk of the cocaine ascending too high to the medulla, and paralyzing the vital centres there. This has actually occurred in some cases.—Exchange.

The American Medical Association's Defense.

We note that the Journal of the American Medical Association, incited thereto both by what it calls the "attacks" of its "enemies" and also by the criticisms of one of its own councillors, Dr. J. Henry Carstens, of Detroit, Mich., has been led to take up editorial cudgels in its own defense. Inasmuch as we have ourselves been found, on various occasions, in the attitude of a critic (albeit, we protest, a friendly one) of the association and its journal, we naturally have a more or less direct interest in seeing what the Journal has to say.

Of course, the most regrettable feature of the whole matter—a view that does not appear to have suggested itself to the Journal—is that the Association should be in the position of feeling obliged to defend itself at all. And when one notes the childish interpretations which it has put upon the criticisms that have from time to time been leveled at it, and the petty retaliatory character of the reply which it now makes to them, one has to consult the title page to assure himself that he is really reading the official organ of a body supposed to represent the medical profession of the greatest country in the world.

The question that naturally arises in the mind of the "man up a tree" who reads this remarkable defense is, What is the writer defending himself or his principals from? If, as the editorial declares, the "attacks" complained of have all been "deliberate and malicious falsehoods," why in heaven's name do they call for notice from a body as high as the American Medical Association? Or if, in the opinion of the directors, the falsehoods are really serious enough to need disposing of, then what specifically are the falsehoods so complained of, and what is the answer to them? The writer of the editorial points out a little later on that "among all the slurs and attacks made on the association and its officers there have been no definite, tangible accusations, no specific statements, but on the contrary, insinuations, vague generalizations, and indefinite hints of alleged or assumed mismanage-

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ment." It is difficult to reconcile this size-up of the "attacks" with that which characterizes them as "deliberate and malicious falsehoods," and still more difficult to see what advantage the Journal expects to gain by answering these vague generalizations with revilings equally pointless and splenetic.

Outside of the proprietary question, which cannot be regarded as peculiar to the Association as a body, and concerning which not only independent physicians and manufacturers, but the public itself will have something to say in spite of professional paternalism, the criticism which appears to have created most disturbance and called forth the most resentment in the breast of the writer of the editorial is that the management of the association has savored a little too much of a "ring." Yet the very reason given for breaking silence is that "members of the Association of years' standing . . . are writing letters and asking questions which show

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plainly that they have been misled, and have accepted as facts the vague statements and insinuations made by those who are interested in creating dissatisfaction and suspicion,"—a state of affairs hard to understand, if, as the editorial elsewhere asserts, the association is "doing exactly what it has been instructed to do by those representing the profession."

So far as we are concerned, however, the whole defense and the matters with which it purports to deal are trivial and insignificant. They merely skim the surface, and leave untouched the central trouble, of which the very discussion of these petty matters is but a symptom. Our quarrel with the association is not on the score of what it does, but of what it does not do. We are told in the editorial under comment that no reply has been previously made to the attacks "because the officers deemed the work in which the Association was engaged of too great importance to waste time or effort in defense." If that were really true it would constitute so efficient and adequate a reply to all carping that no other would at any time be necessary. But what is the work of such colossal moment in which the association has been engaged?

Three achievements of the association, in as many years, are cited by the writer as representing the cream of its organized work, namely, the establishment of a Council on Pharmacy and Chemistry, and a Council on Medical Education, and the compilation and publication of a medical directory. To this of course must be added the task of organization itself. What a stupendous showing for a body purporting to represent the organized medical science of the first nation in the world! What of all the vast and far reaching problems in medical science awaiting solution, the prodigious and momentous economic, sociologic, and humanitarian questions pressing for elucidation, the boundless fields of pathology and therapy inviting research and discovery? These, as we have previously said, are the real labors of organized medicine, and to these the American Medical Association, so far as we are aware, has, in its corporate capacity, as yet contributed not a single iota of energy or money. In all of the crusades that have been waged in recent years for pure food, improved sanitation, etc., the organized influence and activity of the Association has been conspicuously wanting.

We recall speaking on a recent occasion to the executive officer of an institution which was being much annoyed and harassed by the spiteful aspersions of an official whom they had found it necessary to drop. In answer to our question "What are you going to do about it?" the executive replied, "We are simply going to elevate the policy and course of the institution onto a plane where such attacks cannot reach us." We commend the sensible plan to the American Medical Association as the most effective remedy for whatever embarrassment it may suffer from adverse criticism. We repeat what we have already said in a previous editorial: The great fault of the Association is that its big talk is all on the side of large and vital topics, while its busy activity is all devoted to pettifogging and unimportant matters. As soon as it leaves its present pettifogging and fruitless course, and adopts a broad and earnest policy, taking its rightful place and work as the organized representative of medical science arrayed against all that threatens and injures public health and life, it will command such loyalty and confidence and money and men that it can afford to disregard the harmless barking of small dogs.—Medical Standard.

Evaporated Milk.

When we originated sterilized unsweetened condensed milk our product was named "Evaporated Cream"—a term descriptive of its creamy consistency and color, and adopted for the purpose of distinguishing it from the older sweetened preparation (a mixture of milk and cane sugar) which had become known as "Condensed Milk."

In food substance our product is richer than "dairy cream," and may be used in place of ordinary cream; furthermore, since it is a form of cream obtained by a process of evaporation, the name "Evaporated Cream," always accompanied by a correct description of the article on labels and in advertising, seemed to us quite appropriate.

The National Pure Food Law, which becomes effective January 1, 1907, carries a clause preventing the sale of any article, excepting mixtures and compounds under a distinctive name. As our product is neither a compound nor a mixture such as "Condensed Milk," "Malted Milk," "Ice Cream," etc., our distinctive name, "Evaporated Cream," is ruled out.

Appreciating the benefit which will accrue to the public from the Pure Food Law by giving protection against fraudulent products, we cheerfully accept the above ruling and shall, in the future sell our product under the simple name of "Evaporated Milk." The product will remain unchanged, and will continue to be a safe, uniform and satisfactory substitute food for infants. **Helvetia Milk Condensing Co., Highland, Ill.**, Manufacturers of "Highland Evaporated Milk," "Pet Evaporated Milk."

Nephritis, Chronic, Prognosis of in the Young.

Herringham (Edinburgh Medical Journal) speaks of the alarm which is usually caused by this disease in young persons, for with them the convoluted tubes, glomeruli, and interstitial tissues are all affected. Dilute urine in these cases is glomerular urine, and this usually means rise of blood-pressure and fibrosis of the kidney. Death in these cases may be from exhaustion with dropsy and convulsions, or there may be convulsions and no œdema. The kidneys in the one case are large and pale, in the other are contracted and granular. Nephritis is a disease of temperate climates, especially of those in which the variations are sudden and great. A dry, sunny, and warm climate is most suitable for patients with this disease. Diet is of great importance. Meat is not believed by the author to be harmful, alcohol and condiments need not be foresworn altogether. Appetite is the chief thing to be encouraged, but it is always advisable that no more should be eaten than can be assimilated. As to the mode of life, one must not get fatigued, chilled, nor wet. Pleasures may be taken in moderation, and there should be abundance of fresh air and exercise.

THE WORM TURNS.—"You are another." The much-pounded, pelted, and persecuted ten-thousand-dollar-editor of the Octopus hits back. He pitches into the New York Medical Record with an energy that is surprising this hot weather, and wears him out "bodaciously"—an energy born of desperation and long-suffering. In the Octopus of September 15, the leading editorial is devoted to denouncing the Medical Record—some two or three pages being given to it. It fairly bristles with "false," "falsehood," "maliciously false," "mendacious," etc. It makes good reading these sweltering afternoons. "It is to laugh." "Go it, old woman, go it, bear!"—Texas Medical Journal.

Fecal Vomiting and Reversed Peristalsis in Functional Nervous Disease.

The importance of fecal vomiting as a diagnostic feature of intestinal obstruction is such that the

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Listerine is an efficient and very effective means of conveying to the innermost recesses and folds of the mucous membranes that mild and efficient mineral antiseptic, boracic acid, which it holds in perfect solution; and whilst there is no possibility of poisonous effect through the absorption of Listerine, its power to neutralize the products of putrefaction (thus preventing septic absorption) has been most satisfactorily determined.

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A saponaceous detergent for use in the antiseptic treatment of diseases of the skin

Listerine Dermatic Soap contains the essential antiseptic constituents of eucalyptus (1%), mentha, gaultheria and thyme (each ½%), which enter into the composition of the well-known antiseptic preparation Listerine, while the quality of excellence of the soap-stock employed as the vehicle for this medication, will be readily apparent when used upon the most delicate skin, and upon the scalp. Listerine Dermatic Soap contains no animal fats, and none but the very best vegetable oils; before it is "milled" and pressed into cakes it is *superfatted* by the addition of an emollient oil, and the smooth, elastic condition of the skin secured by using Listerine Dermatic Soap is largely due to the presence of this ingredient. Unusual care is exercised in the preparation of Listerine Dermatic Soap, and as the antiseptic constituents of Listerine are added to the soap after it has received its surplus of unsaponified emollient oil, they retain their peculiar antiseptic virtues and fragrance.

A sample of Listerine Dermatic Soap may be had upon application to the manufacturers—

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possibility of the occurrence of the symptom in other less grave conditions is overlooked. In the case reported by F. P. Weber (Brain, Summer, 1904) three successive laparotomies had been performed in a patient in whom fecal vomiting and reversed peristalsis were merely hysterical manifestations. This as well as the study of similar cases in the functional nervous vomiting, like the hemianesthesia, palsies and spasms of hysteria, must be regarded as due to an abnormal state of the cerebral cortex, and is just as much a symptom of functional brain disease as the vomiting in case of cerebral tumor is of organic brain disease. Fecal vomiting of functional nervous origin is merely a rare and extremely exaggerated form of ordinary hysterical vomiting. The vomiting in functional brain disease may sometimes be more violent and severe than it ever is in organic cerebral disease, since fecal vomiting is scarcely known to occur in cases of cerebral tumor. Some light is thrown on this point by the fact that a delusion is apt to be more stable and better "organized" in a monomaniac, whose brain, could it be examined, would probably show no obvious change, than in a general paralytic, whose brain is the site of grave organic disease. For the occurrence of fecal vomiting of functional nervous origin active intestinal antiperistalsis is absolutely necessary. But it is not certain that antiperistalsis necessarily always plays a part in the fecal vomiting known to surgeons as a symptom of organic intestinal obstruction. The fecal vomiting in organic obstruction of the bowels is seldom, if ever, more than "feculent," that is to say having the odor of feces without containing obvious (visible) fecal particles or masses. Vomiting of formed feces, in the absence of malingering and gastrocolic fistula, practically only occurs in functional nervous cases. This may partly be accounted for by remembering that an antiperistalsis if it occurs at all is likely to be more forcible when the muscular walls of the gut have not been previously weakened by overdistention or gross organic disease. Hysterical malingering is, of course, apt to develop in the same class of patients in whom fecal vomiting occurring side by side with simulation must be borne in mind.—Indian Medical Gazette.

The Poison of Eclampsia and Its effect on the Treatment.

Zweifel relates the theoretical considerations which induced him to take up the investigation of the blood and urine of eclamptics with the expectation of finding sarcolactic acid present in both. Sarcolactic acid is produced in animals subjected to the influence of an atmosphere containing much less than the normal amount of oxygen, but is not present in the blood or urine of healthy human beings or animals under ordinary conditions. The author states that the detection and positive identification of sarcolactic acid in the urine is extremely difficult, but he was able to demonstrate its presence in the urine of eighteen successive cases of eclampsia. Furthermore, on examining placentas and the blood of the umbilical cord, it was found that in seven cases the proportion of sarcolactic acid was greater than it was in the maternal blood. The author points out that this theoretical consideration affords confirmation of the dictum which has already been deduced from practical experience, that the uterus of an eclamptic patient should in every case be emptied as promptly as possible, since it appears that the child is a source of manufacture for the deleterious sarcolactic acid. He also emphasizes the necessity for frequent examinations of the urine during the last three months of pregnancy, and points out that no symptoms such as headache, vomiting, or ocular disturbances should be overlooked. Zweifel does not believe in the use of morphine in eclampsia, and also expresses the view that treatment by hot packs and other sweating procedures is not only useless because it does not eliminate any poison, but is also directly injurious, since it concentrates the blood. On the other hand, bleeding followed by infusions of salt solution or of solutions containing one-half per cent. of sodium chloride and one-half per cent. of sodium bicarbonate represents a very valuable therapeutic measure. Another procedure of great value is gastric lavage. The vinegar of digitalis and the vinegar of squill are also recommended for their effect on the heart and urinary secretion.—Indian Medical Gazette.

Some Social Factors in the Causation of Infantile Mortality.

Divine (The London Medical Lancet) points out that the factors which contribute to infantile mortality should be studied in their complex operation. It is easy to see how the industrial employment of married women conduces to the neglect of infants. It is quite exceptional to find a woman who can carry on hard work and nourish her child properly, not to speak of the more indirect duties pertaining to the infant's health. In manufacturing towns the infantile mortality is large, greater than in non-textile towns, where mothers usually nurse their own children. The employment conduces to neglect in different ways, but by far the most important is the absence of the mother from home and from the child, which involves artificial feeding. A comparison of towns in which many married women were employed with those in which few or none were employed shows a distinctly higher infant mortality in the former. Over-crowding frequently sums up the factors of poverty, intemperance, crime, and domestic unhygiene. The Registrar-General says: "The direct consequences of close aggregation are probably as nothing in comparison with its indirect consequences. The more crowded a community the greater, speaking generally, is the amount of abject want, of filth, of crime, of drunkenness, and of other excesses, and the more keen is the competition and the more feverish and exhausting the conditions of life. It is in these crowded communities that almost all the most dangerous and unhealthy industries are carried on. It is not so much the aggregation itself as these other factors which are associated with aggregation that produce the high mortality of our great towns and other thickly populated areas." In estimating the density of population it is the number of persons to a room and not the number of persons to an acre which should be considered. There is a close connection between over-crowding and infantile mortality, and the statistics of deaths among the young throughout England show that where the number of persons per room exceeds two the infantile mortality is relatively higher.

In a study of the statistics of English towns and cities it is found that there is a close relation between birth-rate and infantile mortality. The birth-rate and infantile mortality-rate is found to be lowest among the well-to-do classes.

A study of the incidence with which these three factors operate in a given locality shows its position as to infantile mortality. Thus a lowered birth-rate may balance a larger proportion of employment among married women, and correspondingly over-crowding may account for a high mortality-rate where the other factors cut little figure. Thus, Bradford has a large proportion of employed married women, and there is much over-crowding, but its low birth-rate places its infantile mortality also low. Swansea and Cardiff have comparatively few married women employed, and there is little over-crowding, but the high birth-rate brings up its infantile mortality-rate.

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The Treatment of Cystitis.

By JOHN S. PEREKHAN, M. D., CHICAGO.

After reviewing the various causes of cystitis the author classifies the cases into acute and chronic and subdivides the former into mild, severe and virulent forms. Success in treatment depends upon finding the particular cause of the disease and then applying the proper medication. Treatment is also to be applied with reference to the severity of the infection and the stage of the disease. Any treatment which gives promise of a larger average of recoveries is to be welcomed.

Acute cases should always be treated in a general way in addition to the specific treatment, that is by rest in bed, attention to proper elimination by the kidneys and bowels, general baths, local applications, etc. In chronic cases the bladder should be irrigated and direct applications made to the mucous membrane.

He has for sometime past relied upon uriseptin in all cases of cystitis with results quite satisfactory when compared with the results obtained formerly by the use of other drugs. Uriseptin being a compound of lithium and formaldehyde dissolved in a non-alcoholic fluid extract of couch grass and corn silk exerts the required soothing and diuretic action and the slow liberation of formaldehyde renders the urine antiseptic, thus preventing further infection from pathogenic organisms.

A number of cases are reported in which the good effects of uriseptin are shown. The author also used uriseptin in several cases of stricture and enlarged prostate and with good effect. The remedy is well borne by the stomach and has never caused gastric disturbances.—Chicago Medical Recorder, Sept., 1906.

The therapeutic properties of Seng have been favorably commented on by many practitioners, especially as to its availability in atonic dyspepsia. Dr. J. W. McNabb claims that it is not so good in fermentative dyspepsia, but contends that in all cases dependent on want of tone or lack of peptic secretions it is a valuable remedy. He states that in convalescence from fever, enteric disorders and a general run down condition, the action of Seng is most perfect.

The neutrality and general purity of the salts entering the composition of Peacock's Bromides have been attested to by eminent chemists. This assurance of its purity and uniformity is of great moment to the general practitioner when he desires to employ a continuous bromide treatment. It is a palatable preparation, and as each fluid drachm contains fifteen grains of the combined bromides, the dose is easily adjusted.

The Dangers of Catheterization.

There can be no doubt that many cases of cystitis are chargeable to infected or unclean catheters. One of the principal sources of this class of infection is to be found in the use of non-sterile lubricants—a fact which merely serves to emphasize, if possible, the paramount importance of using only a lubricant of absolute and guaranteed sterility. Such a medium is "K-Y" Lubricating Jelly, a product which has evoked the highest encomiums in genito-urinary circles. It is an antiseptic, non-fatty and perfectly soluble lubricant, supplied in a collapsible tube which constantly protects its contents from contamination. It is thus easily handled and its absolute sterility, both in and out of use, completely assured. Furthermore, "K-Y" Lubricating Jelly can be injected directly from the tube into the urethra without exposure to the air, this operation being effected by means of a small, hollow, burnished metal cone, easily sterilized in boiling water and provided with a thread that admits of a direct screw-attachment to the stem of the tube. In this way, the parts, as well as the instrument, are lubricated and in its possession of these various advantages are to be found the reasons why "K-Y" Lubricating Jelly so strongly commends itself to the unqualified approval of discriminating members of the medical profession.

Coughs and Their Treatment.

An intractable cough!

What condition so persistently tries the patience of every physician?

Careful examination has been made, the diet regulated, and one of the innumerable prescriptions for that ailment selected, but still the cough continues.

Then more investigation, and more careful prescribing; but still after weeks that familiar cough re-echoes through your waiting-room, and you wish Mrs. Smith would change her doctor.

No such good fortune attends you, and that cough haunts you as dismal thoughts of phthisis do your patient, until you are almost determined to advise a change of climate.

It is not the object of this paper to go into details regarding the only too well-known disadvantages of most of our familiar cough mixtures. Down to that household stand-by, "cod-liver in every form," they have proven, in the vast majority of instances, discouraging failures.

The above-mentioned remedy, which the patient considers proof positive of the doctor's having made a diagnosis of consumption, may invariably be depended upon to disarrange the digestion at least.

Cod-liver oil, once begun, must frequently be continued throughout the entire winter season.

Nor can it be shown that the ingestion of fats and oils into the system, to become oxidized when coming into contact with the oxygen in the lungs, ever does more than raise the local temperature of combustion.

Although this may prevent cold in comparatively healthy lung tissue, its therapeutic(?) effect on the inflamed pulmonary structure may be described as positively harmful.

Cough is a symptom, varying in intensity and character according to its cause.

Nor is that cause always situated within the respiratory organs themselves.

Cough is essentially a reflex act depending upon an irritation of the respiratory centre.

These sources of irritation may be sub-divided as follows: Dropping of mucous from the posterior nares in chronic catarrh. Polypo, enlarged uvula or tonsils, defective closure of the glottis, irritations within the larynx from whatsoever cause, malignant or otherwise. Bronchitis, pneumonia and pleurisy. Gastric when due to derangements of the stomach. Cardiac disease, irritations of auditory canal, and organic diseases within the abdominal cavity.

From the foregoing causes it may be readily estimated that to arrive at the exact nature of any given case may not always be an easy matter. Nevertheless, we must relieve the patient without risk of disturbing either digestive or circulatory systems. Any remedy which will attain this object in a goodly number of cases is indeed a God-send to patient and physician, and in every sense an ideal remedy.

Not until our attention was called to Glyco-Heroin (Smith) did we become acquainted with a remedy which we have used with a most unvarying success in coughs of every description, and in patients of all ages and conditions, without the slightest unfavorable effect.

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The points which recommend Glyco-Heroin (Smith) are:

1. Palatability.

2. Economy (three to four ounces being ample for a cure of the average case).

3. Its immediate action, soothing the most trying cases.

4. Its absolute freedom from unpleasant or unfavorable effects.

5. It is not only a palliative but a curative agent.

6. The hyoscyamus it contains reaches those trying cases of dry cough due to other causes than simple catarrhal irritation of the respiratory tract.

We are convinced that Glyco-Heroin (Smith) has no competitors in results, its action being almost specific. It will give satisfaction in every case where results may be reasonably expected, and in many cases its beneficial effects go beyond the most sanguine expectations.

The character of the cases coming to the Wayside Mission Hospital for treatment may be imagined when it is remembered that it is essentially a charity institution; that the vast majority of patients come to us after having tried everything else. These are worthy prospectors and miners, broken in health and pocket by exposure and misfortune.—Alex. DeSoto, M. D., and C. W. Crompton, M. D., of Wayside Mission Hospital.—From the Lancet-Clinic

The Treatment of Gough.

Cough, regardless of its exciting cause, is a condition that every physician experiences more or less difficulty in relieving. While the agents designed for its relief are numberless, it is a matter of common knowledge that but few of them are of general utility for the reason that although they may be capable of effecting relief, in doing so they either derange the stomach, induce constipation, or cause some other undesirable by-effect.

The ideal cough cure must combine sedative and expectorant properties without exhibiting the slightest system-depressent, gastric-disturbing, constipation-inducing or palate-offending action. Nor should it contain any ingredient the prolonged use of which would cause a drug-habit. Then, too, it must be of sufficient potency to produce the desired effect with the utmost promptness, for, in many instances the patient has indulged in self-drugging to a certain extent before consulting the physician; hence, it is directly to the interest of the practitioner to demonstrate his skill by immediately relieving the disturbing condition.

It is now universally conceded that Glyco-Heroin (Smith) is the ideal cure for coughs of all varieties. This product embraces the most active sedatives and expectorant agents in the exact proportions in which they exhibit their greatest remedial potency. It matters not what the exciting cause may be, the effect of this preparation is always immediate, pronounced and extremely agreeable. The cough is almost instantly suppressed, the expulsion of the accumulated secretions is stimulated, respiration is rendered free and painless and the inflammation of the lining of the air-passages is speedily allayed by its use.

Glyco-Heroin (Smith) may be administered for an indefinite length of time without any depreciation in its curative properties and without the induction of a drug-habit. It is of especial value in the treatment of pulmonary phthisis. It is preeminently superior to all preparations containing codeine or morphine.

Miscarriage.

I have prescribed Dioviburnia and Germiletum in my practice repeatedly, especially the former. As a general uterine tonic it has given more than ordinarily good results, and I carried one patient over the third month of pregnancy who had three times previously miscarried at that point.—Dr. C. M. Baker, Hyannis, Mass.

Vast Possibilities of Nevada Fields.

Nevada has been clearly marked out by nature to become the world's greatest and most profitable mining section. It was as a mining country that the State first achieved prominence, and as such it is fast forging ahead toward first place as the leading State in the production of gold and copper, not to speak of silver, and a long and varied list of other metals.

From being in the position of the man who believes that "all things come to those who wait," and beguiles his waiting by making constant efforts for his own development and success, the mining industry of Nevada has now reached forth vigorously through the mystery of tradition by which she has been surrounded in some sections of the country and has become a sought-for country, rather than a land unknown to many eastern capitalists, who, going perhaps in an exploring or curious mood, return home enthusiastic and amazed at the wonderful mineral resources here displayed and glad to reflect that the surplus locked up for them in safety vaults gives them the means of placing money where, with the exercise of intelligent judgment, the greatest profits from mining can be made.

The great mining prosperity of the past two years has demonstrated many things for Nevada. There has been a notable increase in the production of gold, a great revival in silver mining, values have been proved still greater with deep mining, thus removing the mistaken idea that Nevada mines "do not go down."

Tonopah today is producing millions in gold and silver and a city of several thousand inhabitants has sprung up as if by magic where a few years ago there was but a desert waste. Prospectors with all their worldly goods packed on burros set out in every direction from Tonopah and the discoveries at Goldfield astonished the world and resulted in the extension of the Tonopah railroad south to the mines. Next the Kawich and Bullfrog mines were discovered and now Manhattan is setting the whole country aflame with gold discoveries. From time to time during the past three months the editor of the Western Trade Journal has had occasion to speak in favorable terms of several Nevada companies. We have not hesitated to recommend the stock to our readers, as our investigations of these enterprises have been such as to convince us that as legitimate and promising mining enterprises nothing more secure are on the market. It is therefore a satisfaction to be able to add one more promising Nevada

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company to our list of reliable companies. In this connection we refer to the Pittsburg-Manhattan Mining Company, whose properties consist of five claims, located in the famous Manhattan mining district, Nye county, Nevada. Developments are being made as rapidly as possible. The company is driving a tunnel at the present time on the Money Power claim and expects to tap two highly mineralized veins within a short time, that outcrop at several places on the surface and carry values in gold and silver. The company is incorporated under the laws of Nevada, with a broad and ample charter. Capitalized for $1,000,000, shares $1.00 each, fully paid and non-assessable. Four hundred thousand shares have been set aside as a treasury fund for the sole use and benefit of the company in the development and operation of its properties and for such other uses as are needed by the company. You can obtain these shares now at 10 cents per share, cash or installments. You don't have to be rich in order to become a shareholder in this splendid company. If you are not in a position to pay cash the company will accept a small payment down with the order, the remainder in five monthly installments.

This company has been the subject of painstaking investigation on the part of The Western Trade Journal, and a spirit of fairness impels this statement, that the most searching examination convinces us that the company offers the best form of investment in Nevada mining stock within our knowledge. For particulars not made plain by this free and unsolicited editorial, address Mackay, Munroe & Company, Fiscal Agts., P. O. Box 792, Tonopah, Nevada.

We consider but the interest of the subscribers, who may be undecided how to invest in Nevada gold mines, when, without insinuating ought in detraction of other companies, we bestow our unreserved indorsement upon the Pittsburg-Manhattan Mining Company's proposition. In view of the foregoing, we feel it a duty to advise our readers who desire an interest in one of the best Nevada mining companies to lose no time in securing some of these shares, which offer the very best security for the least money that ever came under the purview of this paper.——Western Trade Journal Chicago.

Sudden Death In Course of Eczema.

Bernheim-Karrer (Jahrb. f. Kinderheilk) discusses the mystery of the sudden deaths of children with eczema of the scalp and face. In one such case the autopsy revealed an unsuspected streptococcus focus in one lung, the action at a distance of these germs having induced slight endocarditis and pleural effusion. In another case an infant with eczema exhibited attacks of heart weakness, possibly from a similar action of the germs on the heart muscle. Another child of eleven months was in his care for recurring eczema of the scalp and face. The child was brought to him, after two months' absence, on account of a new patch on the cheek, and he was impressed with the dull look in the eyes, but nothing abnormal could be detected in lungs or heart. The cervical glands were swollen. The author ordered a salve ichthyol and zinc oxide. The child seemed unusually quiet and was found dead the second morning. Staphylococci were discovered in the cutaneous lesions and in the internal organs. Their numbers were not large, but it is possible that the eczema may have generated toxins, similarly to extensive burns, which may have induced an actual toxic form of staphylococcus mycosis. This assumption was confirmed by a number of experiments on animals. Infection with the staphylococcus alone did not cause by any means such severe symptoms as when the staphylococcus infection was supplemented by a cutaneous lesion, such as a croton-oil blister. The heart seemed to suffer particularly in these cases. The researches reported emphasize the importance of careful oversight of the heart action in cases of extensive eczema. Possibly the blood pressure might afford useful information.

A Treatment of Scrofula.

"For several years I have been using Succus Alterans in my practice. Over a year ago I had a little patient, 15 months old, that had a scrofulous infiltration of pus which burrowed beneath the entire scalp. Succus Alterans effected entire recovery, and the child is now an apparently healthy boy, running about everywhere. Considered a wonderful cure by all who saw the case."—R. J. C., M. D.

"I have used Succus Alterans in syphilis and scrofula with most decided benefit. I noticed the first signs of improvement to be an increase of appetite and better assimilation of food. Patients gain in weight and sleep more quietly. The red blood corpuscles are greatly increased in numbers."—G. C. B., M. D.

The attention of our readers is called to the advertisement of Robinson-Pettet Company, which appears on page XVIII, of this issue.

This house is one of long standing, and enjoys a reputation of the highest character.

The preparations referred to, we commend specially to the notice of practitioners.

The Charlotte Medical Journal.

VOL. XXIX CHARLOTTE, N. C., DECEMBER, 1906. No. 6

Report of Surgical Cases.*

By D. T. Tayloe, M. D., Washington, N. C., Chief Surgeon Washington Hospital.

Case 1.—The first case that I wish to report is an operation for occlusion of the cystic duct, with calculi in the gall-bladder.

Mrs. B., white, age 55, much emaciated. At various times within the past two years she suffered repeated attacks of hepatic colic and jaundice. Eventually there appeared an enlargement, with tenderness upon pressure below the point of the ribs on the right side, and she complained of acute pain at times in this region. I detected an indurated mass at the lower margin of the liver, which was quite movable. The outline was rather globular below, but extended upwards beneath the liver, and inclined upon her right when patient turned upon her right side, and towards the median line when she turned upon her left side. When she lay upon her back the mass corresponded to the usual site of the gall-bladder, and could be lifted upward and forward by the fingers thrust under it. I was told by her physician that this enlargement would disappear at times, and recur at frequent intervals. Considering the great mobility of the mass, with recurrent attacks of pain and jaundice, there was strong ground for suspecting obstructed gall-bladder with retained biliary calculi, and this is the diagnosis upon which I operated.

The upper right abdomen was opened and the distended gall-bladder brought into view. Introducing my finger outside of the gall-bladder I felt a number of gall-stones within its cavity, and with a view to their removal I incised that organ sufficient to admit a calculus scoop, and removed several stones. Upon introducing my finger into the gall-bladder I felt distinctly a gall-stone slightly embedded in the cystic duct, in all probability acting as a ball valve, which would account for the distention and disappearance of the gall-bladder and the recurrent attacks of pain and jaundice. I succeeded in removing this stone with some difficulty. I then stitched the gall-bladder in the usual way to the edges of the abdominal wound. There was considerable discharge of bile and later of watery mucus. The patient left for home on the 28th day with the wound closed, and perfect restoration to health.

Triple Amputation

The second case to which your attention is called is that of a colored man, 32 years of age.

On March 8th I received this patient from the lower part of my county, having been sent to me by a physician in that section for the purpose of surgical treatment. Upon examination it was seen that he suffered from gangrene of both lower limbs, one fore arm, nose and left ear. Not presenting a history of undue exposure to cold, my second thought was that such a condition was of a diabetic nature. This prompted my examining the urine, which gave negative results, though I learned later the history obtained was false, and that he had been exposed in a freeze and snow a short time previous to consulting a physician. This case occurred to my mind to be almost hopeless, owing to the fact that he was much emaciated, had no appetite, could retain nothing in the form of nourishment, and in consequence of this he was absolutely helpless, scarcely being able to raise his head from the pillow; and was to me the most pitiable patient who had ever fallen into my hands during my course of practice.

In any light the case might be viewed prospects for recovery seemed so very limited that I determined with his consent to give him the quickest results, whether favorable or unfavorable, and chose as that method a triple amputation. The patient was given that morning hypodermically a 32nd of a grain of strychnine and repeated in about three hours, at which time he was operated upon. After going through the usual methods of preparing the parts for an operation the patient was placed under the influence of an anaesthetic, ether being used. Not having at hand a sufficient number of tourniquets, ordinary bandages were used to control hemorrhage. Dr. Thos. Burbank was assigned the left leg, Dr. Joshua Tayloe the left arm, and I took for my portion the remainder, which was the right leg; also the nose and ear required some trimming. Dr. A. K. Tayloe in charge of the anaesthetic announced the patient ready, at which signal all began to operate, working as rapidly as possible, each limb falling from his body almost simultaneously. The individual duties assigned the physicians were not complete until each had sewed together the flap and dressed the stump, which was also pushed as rapidly as possible, thereby greatly reducing the length of time which would ordinarily be required for this operation undertaken by a single operator. The patient did not suffer

*Read before the North Carolina Medical Society at Charlotte, N. C.

any noticeable shock during or after the operation. He had no disturbing symptoms during the course of recovery; wounds healed by first intention. He is now in good health and has gained flesh rapidly.

Case 3.—The next case I desire to report is that of a young man, age 20, with dislocation of the head of the femur backwards and upwards on the dorsum ilii, of six weeks standing.

This particular case is of interest from the fact that literature on the subject is very limited. In fact, I could find but little mentioned of treatment for dislocations of long standing.

This man was totally unable to walk, or even put the dislocated limb on the ground, hence I made up my mind to take chances should I fail to reduce it by the usual method, and cut down upon the joint dividing all constricted points, and put the head of the bone in the acetabulum at all hazards. The patient was placed under chloroform, and with a sufficient number of good assistants every effort was made in the usual manner for one hour, but failed to accomplish the desired results. I saw it was useless to continue, as it would only produce trauma and further injure the soft parts. I then made a straight incision over trochanter down to the capsule. The capsule was ruptured and the head of the bone thrown plainly into view. the muscular attachments around the trochanters were cut away, and all other muscular constrictions. With a large spoon curette, The acetabulum was cleaned out sufficient to admit the head of the bone, then with proper manipulation the head of the bone was thrown into the acetabulum. It required some great force to accomplish this. I then sutured the capsule together and left part of the superficial wound open for drainage; put the limb up in its normal position with slight extension by means of a weight.

At this writing he has no shortening, the wound is about healed, the limb is in fine position, and there is a fair range of motion, though the case has not been operated upon a sufficient length of time to say just what the ultimate result will be.

Case 4.—The next case that I have to report is one of double femoral hernia of seventeen years standing; herniotomy under cocaine anaesthesia, with complete cure.

A young woman, age 20, consulted me for double femoral hernia, which had existed since childhood, and for the past few years had given her much trouble. Both hernia sacs were above the average in size, and gave her a good deal of trouble and pain when standing or walking, though were easily reduced when lying down.

The incision over the femoral tumor revealed a large globular mass the size of a hen's egg, which consisted of omentum enclosed in the peritoneal sac. The omentum was pushed back in the abdominal cavity, the sac pulled forward, ligated and cut off, and the femoral canal closed by use of catgut. The fascia was also brought together with same sutures. External wound closed with silkworm gut. The wound dressed in the usual way. The patient was discharged in three weeks with perfect results.

I wish to mention in this connection the decided advantage of cocaine anaesthesia, as I find frequently under general anaesthesia some difficulty in finding the sac; not so with local anaesthesia, as I direct my patient to cough, forcing the sac down where it is easily recognized and dealt with. I find the conditions in femoral hernia are very different from those of inguinal hernia, so far as radical cure is concerned. One can extirpate the sac of a femoral hernia, but to close the canal is very much more difficult than to close the inguinal. If you try to sew the femoral canal, we have really very little opportunity to introduce a suture, because right alongside it is the femoral vein and other large vessels, and the partition between the septum crurale and the vein is very thin—hardly strong enough to support a suture, hence the difficulty in keeping the point of the needle from penetrating the large vessels.

The solution of cocaine used was from 1-400, and going through the skin from 1-800 in the deeper tissues.

Case 5 —The next case is ligation of the common carotid artery for stab wound of the neck; the knife entering just behind the angle of the jaw, severing the large vessels and penetrating the tonsil.

I was called to this man hurriedly and found that he had received the stab as above stated. Hemorrhage was so profuse and sudden that he sank to the ground, and fell with his neck across a narrow step, thereby temporarily suppressing hemorrhage, but when his head was raised by the physician who was present shortly after the wound was received blood gushed forth in such profusion that he became pulseless and collapsed. The doctor immediately thrust his two fingers into the wound, thereby controlling hemorrhage until he could get other help.

Upon my arrival his condition seemed almost hopeless. It was useless to attempt further packing with gauze, as it was washed away so rapidly by the blood, so controlling the hemorrhage by pressure of the fingers of my assistant in the wound he was immediately transfused with saline solutions. I then cut down in the usual method over the course of the carotid. Had

no difficulty in ligating the large pulsating vessel. The assistant withdrew his finger. Hemorrhage had entirely stopped. The wound was closed in the ordinary way. Recovery was uneventful.

I mention this case as rather a rare instance. As a rule in incised wounds of this nature about the region of the neck hemorrhage is so profuse as to destroy life before the patient can receive surgical aid. In this particular case a physician was in a hundred yards of this man when the wound was inflicted and rendered prompt aid, otherwise he would have bled to death before surgical assistance reached him.

The Antipathic Influence of the Normal Body Secretions.*

By Dr. H. D. Stewart, Monroe, N. C.

Mr. President and Gentlemen of the Medical Fraternity:

I am supposed to have a paper under the section of "Practice"; but the study of physiology and physiological anatomy bear such a basic relation to the practice of medicine that I must necessarily go into the field of physiology.

I have read over the program and find one hundred and fifty-three papers. This means that to get a man interested in medical organization you must put him to work.

Every doctor who is so inclined must be allowed to think he is a leader and to take an easy part in all discussions.

To know best what to do, best how to do it and best when to do it is wisdom. To know best what to do is wisdom of judgment and decision; to know best how to do is wisdom of action; to know best when to do is wisdom of time and opportunity; to know best what to write and how to write it is wisdom of thought and verbal expression. It is this last we all need so much at this time.

The subject I have undertaken to develop is one of such vast proportions as to cover, or at any rate to concern, the entire field of practical medicine.

The normal body secretions are concerned in the prevention and the cure of every disease known to the race, medical or surgical.

I might divide the secreting structures of the body into two sets of glands—those which are secretory proper and those which are both secretory and excretory. It is to the former we must look for the disposition of food, or whatever else may be taken into the stomach; it is to the latter set we must look for the elimination of whatever is not absorbed into the lymphatics for the building up and prolongation of the protoplasmic life. To the group of secreting glands belong, in order anatomical and physiological, the salivary glands, the cardiac and pyloric glands of the stomach, the pancreas and liver and the glands which secrete the succus entericus. To the group of secretory and excretory glands belong the liver, the kidneys, the sweat-glands, and these are all assisted by the lungs in their exchange of the deadly carbon gas for the invigorating, vitalizing oxygen.

This group of secretory, digestive glands have the stupendous task of trying to dispose of all that the human habitua or bundle of habits takes into his patient, forbearing stomach, whether it be the poisonous drug with increased toleration or with accumulative action, or hypersecretion of saliva mixed with extracts from the tobacco weed; whether it be lamp chimneys, nails, pocket knives and other articles of unnatural diet eaten by cows, goats, and a few human monsters; or, if indeed, it be the deadly alcohol that is the chief etiological factor in so many cases of cirrhotic liver, kidney, lungs, brain and other diseased conditions; or, if it be the sparkling cup of champagne or cocktail around whose festive board so many social fellows love to linger—if any of these things be taken in excess, or even some in moderation, the stomach and its assistant sentinels rebel; they give up the job, and some acute disease results, or a chronic pathological condition of their cell life may be founded.

To the healthful action of these glands we owe our vigorous manhood. To the normal equalized work of these organs we must look for a clear brain and a steady nerve. For there must be a sound physical basis before the brain and the other parts of the triune man can accomplish the greatest, best work.

Did you ever try to think clearly and consecutively when your bowels had been constipated a week and you had a resultant auto-intoxication?

Have you ever tried to be pleasant and agreeable, or to control that old temper of yours when your liver was clogged to the limit, and the bile and other products which this great scavenger-gland secretes and excretes had been diverted into the blood?

What is the cause of rheumatism, congestion of the lungs, of the kidneys, of the liver, of the stomach, and of other organs? It is congestion of the liver. It is the failure of some excretory organ to act sufficiently—the checking and diversion of some secretion.

When any one class of foods is taken in excess, or taken too long, there is going to

*Read before the North Carolina State Medical Society at Charlotte, N. C.

be fermentation; there is going to be congestion of mucous surfaces. The normal secretions have been disturbed in their making and in their action. There must be a judicious mixture of proteids, starches and fats.

A sudden checking of perspiration, the sudden chilling of the surface of the body, congestion of the liver backing and damming too much blood into other organs may cause inflammation of the lungs or of any other organ.

These factors sending excessive blood supply to various organs will cause a simple congestion, or they need only have infection caused by some specific germ added to produce an inflammation or a pathological condition, the cure of which may require the skill of the most able physician, or of the most accurate, dexterous surgeon.

It is the physician's business, if he has been called in time, to use the best, safest remedies to limit the trouble to a single congestion. Often he must be skilled in both prompt diagnosis and in treatment to do this. And even then some congestions will go on to infection and inflammation.

Nothing relieves congestion of any organ so much as determining the excessive blood supply to other parts and giving the struggling organ complete rest.

This may be accomplished by a brisk, cholagogue purge, followed with a hydrogogue purgative. Or in some cases it may be accomplished by a blister, or by bleeding with the knife, or by drugs which bleed a man into his own vessels.

A great confederate veteran of our Southland, John B. Gordon, attended a banquet in Macon. He was a social fellow. He ate to excess. Acute indigestion or congestion of the stomach and liver carried him to the mysterious beyond. He was old. He had an old man's stomach and heart, and his heart could not stand the strain.

The beautiful, beloved daughter of the confederacy, Winnie Davis, attended the reunion of the Confederate Veterans in Atlanta. She had contracted malaria. Her liver was not doing its normal work. She was driven in a carriage through a damp, chilly atmosphere. There was a sudden checking of the secretions and malarial gastritis carried her to her heavenly home despite the efforts of the best physicians to save her life.

Surely man's stomach, instead of money, must be the root of all evil.

You have seen the Epicurean fill up one more time and die. You have observed the alcoholic take unto himself one more longed-for drink and pass to his reward.

You have seen the brain congested. You have watched the cells of the gray matter that seem to secrete the thoughts and to dictate self-control and decent conduct first waltz, then whoop 'em up, then whirl in the social swim, then stagger and settle.

You have seen cocktail and champagne suppress the toast-master's voice and defy the acoustic properties of O'Donohue Hall —or of any other auditorium. Some of you have even felt these things, and maybe you have repented at your leisure, while seeking the full water pail.

I believe it was Hughlings Jackson who said a man is as old as his arteries. It is equally true that a man is as old as his stomach.

When a physician is first called to see a patient, in a case of any consequence, he should take an hour or two to get as good a history as he can, not only of the disease, but of the patient as well.

Then he should make a thorough examination, subjective and objective, from head to foot of patient.

He can then be better able to judge of what assistance he is to expect from nature and of how much hard work he himself will have to do.

If the physician be one of large experience and marked diagnostic skill he may be able to give a reliable diagnosis and prognosis. But if the patient has had irregular habits—if his constitution has been undermined by cigarettes, alcohol, venereal diseases, overeating and irregular eating, by morphine or other drugs; if he has worked his organs to death; if for a long while he has not secured sufficient refreshing sleep; if his daily wear and tear has been far in excess of nature's daily repair, then the physician has a fight to make for the life of his patient.

However, some men had rather do much in a few years time and then pass to give room for the other actors that are ready to fill their places than to be mere drones to a ripe old age.

I will notice briefly the secretions—as to their special functions.

The saliva by its ptyalin changes starch into sugar. By its mucin it lubricates the food and prepares it for the stomach by rendering it more soluble. Always chew your food. Even your milk and your water should be chewed. The mucin of the saliva moistens the throat of the public speaker and facilitates the tongue movements of the loquacious society gossiper, who aspires to be the first official announcer of all sensational news. It protects the mucous membrane of the mouth against stomatitis, the throat against laryngitis.

What is more annoying than a deep ulcer of the mouth or a dry sore throat?

The gastric juice is distinctly antiseptic.

It saves from ptomaine poisoning and from other results of putrefaction, the ravenous New Englander whose palate is delighted with decaying bird flesh, dead for a week before being deprived of its feathers or its entrails.

Gastric juice with too much hydrochloric acid, acting for a long while, may cause ulcer and even carcinoma of the stomach. If the glands of the stomach become atrophied and fail to secrete sufficient gastric juice there is usually a train of evils that even the stomach specialist stumbles over.

The bile is antiseptic and astringent. Pancreatic juice disposes of proteses, fats and starches. The succus entericus changes cane sugar and maltse into glucose.

And now to the glands that both secrete and excrete. Why do people usually have rheumatism during the spring months? Because they take in more of the cause than they eliminate during the winter months. They eat more meat, more proteids and fats in the winter, and do not perspire at this season. So, more work is thrown upon the kidneys, liver and lungs.

A man's liver is in worse condition in the spring than at any other season. The reasons are obvious.

These excretory organs are the renovators of the human body. As long as they are doing their work perfectly and the individual's vitality is not lowered from any cause, the tubercle bacillus, the typhoid bacillus and other bacteria have little, if any, effect upon their respective points of attack, unless the said individual happens to receive an extraordinarily large dose.

The kidneys must act daily or we die. The liver must act regularly or we become intoxicated, sluggish, nervous, nauseated, with congested liver and stomach, rheumatism, sore muscles, headache, neuralgia.

What's the matter with me, doctor? It's your liver. This is a very common diagnosis with the uncertain, inaccurate diagnostician.

Man was not made a diseased creature by the Great First Cause. It is habit and sin that have wrought so disastrously to the human body.

So the physician must fight disease and the devil. There is an everlasting battle on. These be our weapons—plenty of water inside and out; plenty of oxygen, the elixir of life; as much wholesome nourishment as can be readily assimilated; sufficient refreshing sleep and rest to counterbalance daily wear and tear of organic tissues; good elimination. Let all these be wisely secured by a trained nurse or her substitute. If these ends can be secured, the physician knows his patient is going to recover.

I am very glad indeed to say that, though late in the program, I have not had to talk against cocktail and champagne. For no man can out-talk King Alcohol, nor beat him acting the fool.

Last night some of my nearest friends did not know me. And, after I told them who I was, they didn't know which one of me it was.

Varicocele — Haematocele — Hydrocele.*

By E. F. Strickland, M. D., Bethania, N. C.

Mr. President and Fellow Members of the Medical Society of the State of North Carolina:

On such occasions as these we are led by the skillful hand and ingenious mind of many of our ablest members into various fertile fields of medicine and surgery, where theory and practice become a unit for the relief of suffering humanity, and to the glory and honor of our noble profession.

I would not obtrude myself upon you in this connection, except in compliance with a request made by our President, a detestation for non-performance of duty, and a surrender to the impulse that will not down —a willingness, yea more, a desire to contribute my mite to this the greatest medical convention ever held in our great State.

I have chosen for the subject of this short paper a rather long heading—a triple heading, if you please, viz.: "Varicocele—Haematocele—Hydrocele"—which I shall discuss in the order named.

Varicocele is a tortuous condition of the veins of the scrotum. The disease is estimated to be present in at least 10 per cent. of all adult males, but it is of pathological significance in a much smaller proportion of cases than this. The condition often grows out of excessive venary excessive manual exercise or excitement, masturbation, &c.

The compression of the veins above, where they pass through the inguinal canal, and the lax support below, in the scrotum, render them liable to over-distention—a damming up of blood in the veins. It is more troublesome in summer than in winter.

Varicocele is more frequently found on the left side than the right for the following anatomical reasons.

1st. The left testicle hangs lower than the right; 2nd, the right spermatic vein is furnished with valves—the left is destitute of these valves; 3rd, the left spermatic vein enters the renal vein on that side at a right angle, whereas the right spermatic vein empties into the vena cava; 4th, the left spermatic vein in its direction over the pelvis, behind the sigmoid flexure of the

*Read before the North Carolina State Medical Society at Charlotte, N. C.

colon, is often compressed by fecal matter in the bowel.

Symptoms.—Subjectively, a sense of weight, sometimes amounting to pain, is about all. Physically, you usually find the testicle smaller and softer on the affected side, due to atrophy of the organ. On taking hold of the part you find a tumor in the scrotum of the affected side which feels like a bundle of earth-worms. If the case is one of long standing, the scrotum becomes blue on the affected side. Omental hernia is the only condition with which the varicose tumor is likely to be confounded. To differentiate between the two, have the patient recline and if the condition is one of varicocele the tumor will gradually disappear. Now make gentle pressure over the internal ring with the finger, sufficient to keep back a hernia but not to cut off the arterial blood supply, and if on standing up the tumor gradually returns from *below* it is varicocele, otherwise it is hernia.

Treatment consists of two kinds. 1st, Palliative; 2nd, Radical. Palliative consists in giving the scrotum support by the use of a well fitting suspensory bandage, cold douches to scrotum, regulation of bowels and relief to the patient's mind by assuring him that he is not becoming sterile and that his affection is not a malignant one. This is an all-sufficient and satisfactory treatment in most cases. Radical treatment is of many varieties, and is indicated when the patient suffers much pain and disability, progressive atrophy of the testicle, or when the mental depression of the patient demands active measures for his relief.

All of the methods of operation have but one object in view, namely, the destroying of the circulation in the veins and relieving the pressure. I think an operation by open incision preferable to any of the subcutaneous strangulation methods. Expose the veins by an incision in the scrotum over the varicocele and with carbolized catgut ligate the veins at the upper and lower angles of the wound. Then the mass of veins between the two ligatures is excised. A small tube or gauze, for drainage, is placed in the wound and the edges brought together.

A satisfactory modification of this operation consists in bringing the stumps together after the intervening mass has been excised by tying the two ligaturs, thus giving better support to the testicle and holding it higher in the scrotum.

Haematocele is a collection of blood in the scrotum. It is generally of traumatic origin, though not always, as it may come from the rupture of a varicose vein or as a complication of hydrocele. In complicated haematocele the diagnosis sometimes has to be made by exploratory tapping or incision. In an uncomplicated case there is usually a traumatic history, a suddenly developed opaque tumor with discoloration of the scrotum.

Treatment.—Put patient on back, raise the scrotum, apply ice, lead water and laudanum. Hot fermentations may be used in asthenic cases. In a few days this will generally suffice and the patient can get up and by support of the scrotum he can get about. If necessary strapping may be practical in connection with a well fitting support, and, finally, if absorption will not occur and the case becomes chronic incise the scrotum, turn out the contents, cleanse, and if necessary curette the sack, sew tunica vaginalis and skin together and dress antiseptically. As a rule it is dangerous to incise a recent haematocele, on account of hemorrhage. Finally, in old haematoceles of feeble subjects, when other methods have proved futile, and particularly if there is good reason for believing that the testis is atrophied and useless, castration is indicated.

Hydrocele is an abnormal amount of fluid around the testicle or cold in the tunica vaginalis. It is usually unilateral. Of this affection there are several varieties. The two general divisions are: 1st, congenital; 2nd, acquired.

By congenital hydrocele is meant an accumulation of fluid in the funicular pouch which has remained patulous from the abdominal cavity to the testis, and is, therefore, reducible; whereas the acquired, as is generally seen in the adult, is irreducible. The acquired form comes on gradually by the fluid accumulated in the scrotum getting ahead of the eliminative process.

In the congenital form, as seen in children, it is best to let it alone, as it will usually be absorbed and relief come on without interference. In the exceptional cases apply a weak-spring truss to force, or rather to hold the fluid back. Also, paint the parts affected with iodine. May draw the water off with a hypodermic syringe.

For the acquired variety, we divide the measures of treatment into two kinds: 1st, Palliative; 2nd, Radical. Under the palliative measure, thrust a trocar into the tunica vaginalis, leave the canula in position for a few minutes and the whole of the fluid will be removed. This treatment is wholly palliative, as the fluid will soon begin to return, and in from three months to one year there is a demand for a repetition of the tapping, or, what is far better, a resort to the radical cure, which may be, 1st, by injection; 2nd, by operation. An irritating fluid injected into the tunica vaginalis renders the sac powerless to secrete a fluid with which to fill itself. Either Tr. of Iodine

or carbolic acid is usually chosen for this purpose. I prefer the latter, and use it as follows: I tap the hydrocele with a small trocar, the canula of which is attachable to a syringe. After the fluid has all escaped, without removing the canula, I attach the syringe which has been loaded with pure carbolic acid, from 15 to 30 drops, depending upon the size and chronicity of the case, and inject quickly and directly into the cavity. The instrument is as quickly removed, and the affected scrotal side is taken between thumb and finger and gently gone over, spreading out the injected fluid over the surface of the entire serous sac. The anaesthetic effect of the acid renders the operation almost painless when compared with iodine in the same connection; also, the inflammatory reaction is satisfactory but less severe than when iodine is used.

The patient should be kept in bed for a few days, when he is allowed to get up and go about, and, if the operation has been properly and faithfully done, nine times out of every ten there is perfect adhesion between the layers of the tunica vaginalis, and a permanent cure as a result.

When the injection method has failed, where there is double hydrocele and where there is hernial complication, an operation is demanded and Volkman's is the best and is as follows: Lay the tunica vaginalis wide open by free incision—2 or 3 inches long—and allow the water to *pour* out. Now stitch the edge of the tunica vaginalis to the edge of the skin on each side of the incision. Pack the cavity with iodoform gauze, dress antiseptically, support the scrotum and allow the wound to heal up by granulation.

Bugman's operation is unnecessary and unjustifiable except in old cases where the tunica is very much thickened or extensively diseased. It consists in cutting away, with a pair of scissors, a piece from each side of the sack in the shape of a half moon. The edges of the sack are stitched to the skin as in the previous operation, and the dressing is the same.

Some Observations on Head Injuries.*

By Le Grand Guerry, Columbia, S. C.

Mr. President and Gentlemen of the Association of Seaboard Air Line Railway Surgeons:

I wish to take this opportunity for expressing to you my sincerest appreciation of the compliment you have paid me in asking that I read a paper at this, your yearly meeting of 1906. I am confident that the effort will fall wide the mark. Of this I need not be reminded, however, if you will be good enough to accept the will for the deed I shall be very grateful.

Quite a number of head injuries occurring in my practice within the last eighteen months, some of which were so very unusual and the lessons taught so very striking and emphatic that the temptation to present them to you for consideration was irresistible. For sometime it has been my belief that this was a department of operative surgery, the true significance of which is not fully appreciated by the average medical man; if the injury is extensive enough to produce unmistakable symptoms, the course to pursue is quite clear, but how often do we see doctors, and good ones at that, waiting on definite localizing symptoms, which may never occur, before they decide for radical relief? To be successful in brain surgery we must give to every head injury the benefit of the doubt. How often do we see cases of traumatic epilepsy the result of procrastination and delay? No injury to the head is so slight as to merit our disregard, and none so extensive as to be utterly despaired of. The burden of our theme is this, that if the symptoms present in any given case do not demand intervention, they most surely demand the strongest possible reasons for non-intervention. To mention a concrete instance: a boy, age fourteen years, was struck over the left motor cortex by a piece of coal from an engine tender; he was rendered unconscious for about six hours, after which time his mind was perfectly clear; pulse, temperature and respiration remained normal; the attending physician advised against operation because of the very rapid improvement in the boy's condition. To make a long story short, we did a craniectomy on this case for epileptic convulsions within fifteen months, and a depressed fracture of the internal, table over the Rolandic fissure about one inch in diameter, was found. A penny wise and pound foolish policy was the cause of this mistake, and what is the result? You know, gentlemen, as well as I do that this case may get better, and on the other hand, he may go from bad to worse.

Contrast this uncertainty and positive danger with the almost certainty of radical relief and minimum risk from a clean and scientific operation, which if it does not actually cure can do no harm. The pathological lesion in these cases must be removed at once, whether the pressure be due to depressed fracture, hemorrhage or what not; the symptoms must be relieved before the destruction of brain tissue is permanent, before habit is established and before a path is formed.

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting in Savannah, Ga., July, 1906.

We must all admit that we meet with very extensive intra-cranial lesions with little or no external evidence of it, and that at times the extent of damage done is out of all proportion to the symptoms produced; one must always remember how fallible facial signs are, but even so "a localizing sign is of far greater value than any external evidence of injury as an indication for the proper point of operative attack."

The following history of a case is interesting: Mr. P., white, age 55 years, was dealt a blow over the right cranial vault by a highwayman about 10 o'clock at night; the next morning he was found about two miles from the spot where he was injured; the mental hebetude was marked and he recalled absolutely nothing that had happened; he could walk and had good use of both hands; pulse 70, respiration 19; the only symptom of note being his mental condition, and this improved much during the day. He was sent to the Columbia Hospital the next night, where I saw him for the first time. The operation revealed a compound depressed fracture about the size of a silver dollar immediately in front of the Rolandic fissure, with the loss of brain tissue and several pieces of a stiff hat were imbedded in the brain substance; the depression was relieved, the wound cleansed and drainage established; recovery followed.

The following case is one of unusual interest on account of the location of the clot and the almost entire absence of any symptom: A colored boy, age 23 years, was seen by me in consultation about twenty-four hours after recovering from a blow on the left side of his head, there were absolutely no symptoms of any kind present except a very slight spastic paralysis of his right arm, which the attending physician said had gotten very much better; the patient was up walking about, apparently in fine condition; no external evidence of injury was present; on account of this one localizing symptom operation was advised and consented to; the Rolandic fissure was exposed by an osteoplastic resection of the skull; no depression of the external table being found and no extra-dural hemorrhage present, the dura mater was opened for about an inch; immediately on opening the dura there extended from the brain substance a clot of blood perfectly formed, about the size of a pigeon egg. This hemorrhage did not come from any of the dural vessels, but was really from the vessels of the pia-mater into the sub-arachnoid space. Recovery followed prompt and uninterrupted, with complete and permanent relief of all symptoms; had he been left alone undoubtedly a traumatic epilepsy would have been the sequel. No further comment on this case is necessary, as the lesson that it teaches is so plain that "he who runs may read." This case also illustrates the fact that when external evidence of injury is absent we have to depend entirely on the focal signs for diagnosis.

A paper on this subject should not be concluded without some mention of the "symptom free interval in meningeal hemorrhage." The following definition as given by Connell is admirable: "By 'free interval' is meant a practically symptomless period of consciousness, which follows a primary transitory unconsciousness, and precedes a secondary increasing and permanent loss of consciousness; this condition being usually found in association with a head injury."

The most common explanations of this phenomena, as collected by the above mentioned author, are as follows:

1. The time in which the dura is being separated from the skull. Sir Charles Bell, in 1816, found that the dura was intimately attached to the inner surface of the skull, and that a blow or fracture caused a separation of this structure, in this way forming a space in which the blood could accumulate, and as this mass of blood increased in size its force became greater and more dura was detached. In this manner large clots were formed, and finally pressure symptoms appeared.

2. Another explanation may lie in the fact that immediately and soon after the injury, the artery will not bleed rapidly, on account of the lower arterial pressure, due to concussion of the brain and the shock of the injury.

3. Again, after bleeding has been started, noticeable pressure will be exerted sooner if a large vessel is divided than if a smaller branch is the source of the hemorrhage.

4. The length of the interval will depend upon the size as well as upon the situation of the clot. A large clot at the vault or over a silent area may give rise to no symptoms, a smaller one at the base or over the motor area of the brain, owing to the adjacent important structures, may cause very marked manifestations of its presence.

5. Another cause of the delay in the onset of pressure symptoms is the possible escape of blood through a fracture of the skull into the subaponeurotic space.

6. Hutchinson considers the termination of the free interval to be due to a secondary hemorrhage which may come on after a varying length of time, and may be caused by unusual exertion, coughing, straining, great mental excitement or suppuration. Towers reports a case in which such an explanation seems quite rational.

7. As a result of the hemorrhage, there is

an accumulation of blood within the cranium, and hence an increased intra-cranial tension, which at first produces compression of the veins and lymphatics. The obstructed venous return increases the blood-pressure in the arteries, and the circulation continues as usual. The cells are supplied with sufficient nourishment, and they functionate in a normal manner.

This is the stage of "compensation" of Kocher, and corresponds to the free interval. Headache, caused by pressure on the dura, is as a rule the only symptom noticed. With a loss of this compensation there is a lack of nutrition, and in turn an interference with function; pressure or localizing symptoms develop and free interval is terminated."

A case of my own illustrates very beautifully the free interval, and also shows how long a time symptomless period may exist. Mr. S. was struck with a knife blade over the left Rolandic fissure; the knife blade was removed at once and no symptoms, beyond a transient hebetude, were present; indeed the patient, who lived in the upper part of the State, went to work on the next day. Twenty-one days after receiving the injury he noticed that he was losing the use of right arm and leg; this condition rapidly increased, and when I saw him for the first time, four days later, he was in a profound coma; pulse 40, temperature 98, respiration 10, with complete paralysis of the right half of his body; skin cold and clammy. Operation was performed at once, and we found over the left Rolandic fissure a large subdural clot. The recovery in this case was very slow and tedious, but at this time, ten months after the operation, he is able to do ordinary work.

Allow me to add that we do not mean to advocate indiscriminate and saneless operating, but we do repeat what has already been said, that if the symptoms present in any given case do not demand intervention, they most surely demand the strongest possible reason for non-intervention.

Adhesive Inflammation.*

By J. G. Wallace, M. D., Dade City, Fla.

The consideration of the subject of Adhesive Inflammation covers so vast a field that it is impossible to do justice to it in a brief article, if indeed, we were able to compass it.

I shall confine myself to a limited examination of the causes of some Adhesive Inflammation in connection with cases that frequently occur in practice, but which are sometimes overlooked in diagnostic inquiry.

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting in Savannah, Ga., July, 1906.

Adhesive Inflammation is that process which terminates by an adhesion between contiguous inflamed surfaces. It is absolutely necessary that there should be first established an *irritation* in the parts, before the process begins. It is not agreed among authorities as to the extent of thermal force most favorable to the adhesions. It has been established, however, that a degree of inflammation sufficient to destroy the integrity of the outer membranes of the contiguous parts, is required to effect this result. The thoracic, abdominal, and pelvic cavities contain the viscera most subject to adhesions. To a few of these I will refer briefly.

The extensive character of the pleura, and its intimate relation with the contents of the thoracic cavity, renders it peculiarly subject to any changes which they may undergo under inflammatory excitement.

That form of pleuritis which is accompanied by inflammation of the lung structure, termed by some authors "pleuropneumonia" is by far the most productive of these adhesions. Extensive adhesions frequently occur as the result of inflammation of the peritoneum. This membrane bears an analogous relation to the abdominal contents, that the pleura does to those of the thorax. It is easy to understand, therefore, that the same results would obtain from inflammations of the degree favoring adhesions of the organs contained in this cavity.

When the inflammatory process has gone so far as to produce abrasions of the contiguous surfaces, nature makes an effort to supply the loss in the exudation of a plastic lymph, which not only effects the repair, but in the formation of the new tissue, unites, more or less firmly, the contiguous surfaces. This seems at first view a much more serious accident than experience has demonstrated it to be. It is true that any deviation from the normal state is a physical loss, but post mortem examinations have revealed extensive adhesions of structure, which in life were never suspected to exist.

A few remarks with regard to this "plastic lymph," or formative force, may not be out of place in this connection. It is of immense interest to the surgeon. It is to the wounded surface what a refreshing shower is to the parched soil.

Without it there can be no reparative process. Unless nature pours it forth freely over the surfaces of divided tissue, there can be no union effected, no sealing up of wounds. The surgeon regards with deep anxiety the appearance of a wound which indicates a scantiness, or absence of this vital element. It has been termed by authors, "Force of Nutrition," "Force of

Assimilation," "Force of Formation," etc. It is the generative, or formative element, which bears within it the germs of organized tissue. Thoracic inflammation is regarded as more violent in character than those of other portions of the body. This view is founded upon the fact that within it are contained the most vital organs of the body. The danger attending them is proportionate to their violence. Adhesions of the abdominal and pelvic viscera, especially in cases of inflammation of the female viscera, are vastly more common than the careless observer would suspect.

The causes assigned for these adhesive inflammations are manifold. An investigation of them is often attended with extreme difficulty, but the beneficial results attending a thorough understanding of their nature, will amply repay the labor and thought bestowed.

In a short paper like this, a few brief hints only can be thrown out, with regard to what is conceived to be the most productive cause in this class of cases, but I trust they will be sufficient to awaken inquiry which will lead to beneficial results.

Salpingitis, or tubal inflammation, occupies a very prominent place in the production of adhesions of the female viscera. It is suspected by eminent gynecologists that four-fifths of the cases of ovaritis. with consequent suppurations, morbid growths and adhesions, result from tubal inflammations. It is an alarming proposition, but doubtless a correct one. The more convincing does this view appear when the functions of the female generative organs are considered. The accidents to which the female economy is subject are as various as the organs composing it. No woman is exempt from them. The virtuous and pure, surrounded by every safe-guard which solicitous care can afford, may fall in the same category with the base and defiled. Unfortunately, this unsuspecting class, not through their own, but the sins of others, are most frequent victims.

The results of impure connections are more far reaching than many of the profession have conceived. Doctor Longyear, in one of his discourses upon the subject of "The Relation of Gonorrhoea to Disease of the Uterine Appendages" quotes from an eminent Gynecologist (Tait) the extraordinary remark, that, "it would take the suffering of a hundred cases of syphilis to make up for the long weary years of agony of one case of Gonorrhoeal Pyosalpinx. This statement, I conceive to be made, not in any sense to underrate the sufferings of syphilitic patients, but to emphasize the miseries that are endured by the unfortunate victims of Pyosalpinx.

It is stated by eminent authorities as the result of experience, that there are probably forty cases of inflammation of the fallopian tubes to one of the cellular tissues underlying the pelvic peritoneum. These statements are startling, and should quicken the energies of our profession not only to devise means to cure, but to prevent the inception of diseases of this class. That extensive adhesions occur, sealing up the pus formed in the tubes by these inflammations, producing the most serious consequences, cannot, in the light of gynecological surgery of the present time, be questioned.

The consideration of this subject with reference to the fruitful cause indicated, brings us to reflect seriously upon the duty devolving upon us as guardians of the health, and secondarily of the happiness, of those who confide their interests in our hands, of imparting instruction, upon all suitable occasions, in the art of "preventive medicine" as it is termed. No false modesty, or timidity, should deter us from warning our charges against the fatal tendencies of "wild oats sowing" as it is termed. Many a precious female life has been sacrificed upon this cruel altar. A slumbering gonococcus germ may exist in the generative organs of one of these "wild oat sowers" which may some day be sent on its mission of death, through the medium of the genitals of some pure and lovely female—under the sanctity of the Holy bonds of wedlock, and an innocent victim be immolated on the altar of youthful indiscretion. This duty, so far as the adult members of our charge are concerned, will not be a difficult one to perform, but it will be otherwise in the case of the young.

Measures must be devised to bring the matter so close to their consciousness that it cannot be ignored, nor disregarded. A system of education should be established for their benefit. Where you are unable to command their attention privately, you can by a proper system established in every school in the country, enforce it upon them. At first it may be that the progress will be slow, but as soon as the beneficial character of the instruction is perceived, the revulsion of sentiment will be wonderful. It would appear at first view, that this duty properly devolves upon the parent, but our experience has proven that they never have, and probably never will, perform it. It is the duty of the State to take charge of the matter, and the blessings that will grow out of proper system of sexual education of our youth, will be the crowning glory of civilization.

Injury to Hip in an old Patient—Was it a Fracture?*

By John W. Corbett, M. D., Camden, S. C.

M. B., aged 74. an active man, a merchant, very thin, not emaciated, has always been in good health, except for a dyspeptic condition marked by flatulency, and a double hernia of fifteen years standing, a truss worn, and very particular in his diet. On the morning of September 22, 1904, was in the cafe car on No. 31 south of Hamlet, when at 8:15 a. m., attempting to move his seat, he tripped, he says, on the rug of the car, (witnesses say his feet crossed and caught around the leg of the table) and fell, crying out for help. The crew with the assistance of a passenger, carried him forward to a seat in the Pullman, and by telegraphic order I met him at the Seaboard depot at Camden. We lifted him out of the Pullman in a chair, and in the porter's arms, the patient complaining with pain in the right hip when twisted or jarred. He was placed on the right seat of his carriage so that the right leg could be supported by someone on the step, but the patient preferred resting it on the floor of the carriage, crossing the injured right over the left leg. He did not seem to be suffering at all from shock, and had taken nothing to relieve same, except one-eighth of a grain of morphine immediately after the fall, by mouth. We lifted him in an arm chair at his house upstairs to his bedroom, where he was placed on a couch at the foot of his bed, and anaesthetized by chloroform, Esmarch's plan of drop method being used. All this time the natural, or comfortable, lay of the right leg was slightly rotated inward, knee flexed, and toes inverted. Under the anaesthetic the same position also seemed most natural, with a shortening of about 2½ inches. Of course in measuring of the shortening, the limb was straightened out by some force. On examination of the hip with my hand, the absence of much muscle and no fat making this procedure very easy, I could plainly feel the head of the femur displaced upward on the dorsum of the ilium, with no crepitus. Believing it to be a dorsal dislocation of the head of the femur, the head being so plainly felt under the Gluteus, with no crepitus, and remembering Ashhurt's "Lift Up: Bend Out: Roll Out:" I easily replaced the head of the femur in the acetabulum with an audible click. noticed not only by myself but by Dr. DeSaussure, who was the family physician and present. After the replacement and return to consciousness on the part of the patient, there was no pain, no shock, and no swelling about the hip, and an almost absence of tenderness there. Patient could not understand why he could not immediately get out of bed, and was kept there only by promising from day to day that he could go to his business in a few days. Sleeplessness was the only objectionable symptom. He was kept in bed, the foot of the bed elevated, sand bags on either side of the limb and hip, a varying weight of 5 to 10 pounds kept on the extension cord from the foot over a pulley at the foot of the bed. There was no shortening at all, but always a tendency to eversion of the toes. After the tenth day the apparatus was loosened once a day, and passive motion practiced. On the 20th day he was propped up in bed, still having the leg extended. After this he began to have pain in both legs at night, which continued until he was up and about. Two months after the injury, November 23, he was walking well on crutches, and wearing elastic stockings on both legs, which he had had to do some years previous for enlarged veins. January 11th, 1905, patient attempting to go up a slight elevation in his store, fell sprawling on his back; no bad results. Slept better that night than he had done in months. He soon afterwards discarded his crutches, and is now getting along pretty well with a stick. There is now eversion of foot and a shortening of one-half inch, and a medical friend of his from the North says that it must have been a fracture. Patient attended the U. S. Court in Columbia, S. C., December 7th, 1905, where he was sueing the Seaboard for $75,000.00 for the injury. He lost the case. The railroad did not question the injury at all, but proved that they were not responsible.

For many reasons I was never able to get an X-ray picture of the hip, and while it is hard for me to believe that it was a fracture, there is a small doubt in my mind. This doubt is caused by the half-inch shortening, and the eversion of the foot. Still these symptoms might be explained by the loss of contractility or complete severing of the ligamentum teres, and an equal injury to the capsular and the Y ligament,—and the fracture, if one, being close up to the head, —intracapsular. The International Surgery says, in fracture of hip,—"Often at first there is no appreciable shortening, or if any present, it is limited to a fraction of an inch. After some weeks or months, a shortening of two inches or more may be found to be present," Ashhurt's Encyclopedia, Wyeth, Rose and Carliss, Lilianthal, Holms, all agree that in fracture there would be shock, pain, swelling, increasing shortening, and eversion of the toes. And they all on the other hand agree with Tillmans that,—"The most important symp-

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting at Savannah, Ga., July, 1906.

toms of fracture of the upper end of the femur are eversion and shortening of the limb."

To return to this particular case, there is some shortening, but at this time only a small fraction of an inch. There is some eversion of the toes, but this may be due to the destruction of the Y and capsular ligaments, and the complete severance of the ligamentum teres. And from the feel of the head in the acetabulum, after replacement, its mobility up and down, its ease of replacement, I have always thought there might have been a piece of the rim of the acetabulum broken off. The patient is old and his bones brittle. But again, this last mentioned fact, the brittleness of the bones, predisposes to fracture. But suppose it was a fracture, would not the passive motion after the 10th day have kept the bone from healing or greatly interfered in the healing process, this process being correspondingly slow in an old man? Another thing, if there was a fracture of the femur, could not a mass of callus have been felt around the head of the bone in such a thin subject?

Now it is a pity that an X-ray picture has not been obtained for positive evidence, and I hope it may be gotten yet, but we country doctors rarely have the assistance of the X-ray, which makes it all the more important to study the clinical picture for the purpose of making both diagnosis and prognosis, and therefore this imperfect paper is prepared with the hope that the writer will get by discussion and the greater experience of others, some light on this accident. I have tried to put you in possession of the cause, symptoms, and results, and if I can give any other information not thought of in the above, why, I will be delighted to answer any questions in my power.

Fatty Degeneration of the Scrotum, with Report of Case.*

By Dr. J. G. Dean, Dawson, Ga.

As a general practitioner of medicine, located in an average town, which naturally gives but limited opportunity to him surgically inclined, it has been my habit usually to listen rather than to be heard.

I do not at this time expect to add anything new or to disclose anything wonderful to my brothers of the profession, but it has very recently happened that I have been associated with a brother practitioner in the treatment of what has to me been a very unusual case of surgical affliction. While it is not of such a character as would be expected ordinarily to be reported at a meeting of Railway Surgeons I have felt such an interest in its exceptional nature, and as it has come under my observation so near the time of this meeting, I have felt impelled to report it. On 23rd of June I was called upon by a brother physician to go with him to his office to examine what he said might be a case of malignant disease of the scrotum, complicated by hydrocele. The patient was a negro about 30 years of age apparently, with a history of chronic syphilis of perhaps three or more years duration. His scrotum had been increasing in size for about two and one-half years, and during the last six months had increased very rapidly until at that time it had grown to a weight of apparently 10 pounds. Its longest diameter was about 10 inches, the anteroposterior diameter being about seven inches. The transverse 7 to 8 inches. On palpitating the mass there was seemingly some fluctuation, but really a boggy sense of touch. There was no transmission of light, the tumor was not very tender upon pressure, and the testes could not be made out. The symptoms and history did not point to hernia. I suggested the use of the trocar that we might determine more surely if there was present fluid; this done we were only able to get a few drops of a clear, greasy fluid. After carefully considering the best course to adopt in the case we determined to make on the following day an exploratory incision into the tumor and thus determine the real character of the trouble. There was no place to put the patient except at his own home eight miles in the country. We therefore sent him there and on the 24th, with a third physician, went to the home of the negro and did the operation, which revealed what, as I said in the outset, has been an exceptional case to me. On opening the scrotum we found the dartos entirely obliterated; instead of being as normally, composed of loose areolar tissue containing unstriped muscular fiber, and very vascular, it was here throughout its entire extent a wall of fat, varying in thickness from ⅜ of an inch to two inches; the septum scroti was itself a mass of fat its full length and the penis was virtually buried in the fatty mass. There were pockets of fluid in the fatty deposit, and there was quite a little vascularity, of course. Before putting the patient under the anaesthetic we had informed him that there might be occasion to remove the testes, one or both, and, though reluctantly, he had assented to our doing it as a last resort. This precaution was of course taken because of the bare possibility of a malignant condition of the testes. We found, however, that they were apparently perfectly healthy, though slightly below the average size.

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting in Savannah, Ga., July, 1906.

We were greatly puzzled how to meet the difficulty, not having previously thought of such a condition. It was, of course, imperative that we care for the testes by furnishing them with a sack of some nature. It was equally imperative that we remove this mass of fat constantly growing more formidable. It was, unlike Lipoma, not a very easy thing to remove all the mass, at the same time leaving an ample covering for the natural contents of the scrotum. Amputation, more or less complete, was the only solution. The idea of returning the testes to the abdominal cavity, after the order of Dawborn in radical cure for hernia, was suggested, but this we had not mentioned to the patient, not expecting such condition. Though a negro, he had material rights in the premises, which we felt obliged to respect.

We finally decided to take from each side of the tumor a triangular mass along its long diameter, not unlike a slice of melon, and to scoop out, as it were, all fat possible from that part of the scrotum being left, and after all was over to present to the patient later the advisability of a more absolute amputation, returning if need be the testes to the abdominal cavity. We pursued this course, but as a matter of course left still a scrotum of very inconvenient size. After a few days we suggested to the patient what we had desired to do, and obtained his consent to do anything needed. We therefore, on the 5th of the present month, returned, opened up the scrotum afresh, amputated its lower half, and from the anterior and posterior flaps dissected away all fat possible, to, at the same time, leave a sufficient scrotal covering for the testes, which we had decided might be thus saved externally. In removing the fat from the scrotum walls, and in removing the mass which had constituted the septum we had virtually obliterated the several fascias and tunics, except the immediate investments of the testes and cord, which we were careful not to injure materially. The flaps were then brought together with as much asepsis as was possible in the surroundings. We had boiled our instruments, towels and hospital gauze to be used as sponges, shaved our patient, and in every way been as aseptic as we well could in a negro cabin.

When we were through we had reduced his scrotum almost to a normal size, though the investment of the testes is now but little more than a rather thick skin. A wick of iodoform gauze was left in the lower angle of the wound for drainage. On Tuesday of the present week, five days after the operation, the wound was redressed. As careful as we were there was a small amount of suppuration from the point of drainage, though almost the entire line of suture was dry and apparently healing by first intention. The gauze was withdrawn and the lower part of the scrotum irrigated with a one to 5000 solution of bichloride. The patient had no rise of temperature, pulse was normal, he was cheerful and hungry. I have examined authorities for a like case, and while there is no reason why this condition should not occur in this locality as well as elsewhere, I have never before seen, read, nor heard of one, hence this report.

Heroin Hypodermically.*

By L. S. Oppenheimer, M. D., Tampa, Florida.

It has been a matter of repeated surprises to me for the past three years how few physicians have had any experience with the hypodermic administration of heroin, whose use by the mouth in pectorial ailments is so familiar to every one. Most of the recent text-books either fail to mention it at all or only as an adjuvant to expectorants. The frequent use of it for the past three years entitles me to speak somewhat clearly as to its application. I shall describe its actions and uses in comparison with morphine; and, as you are all familiar with the action of the latter, this will facilitate brevity.

Morphine, by the mouth or hypodermically, gives, as you know, almost identically the same results, the only difference being in the relative size of doses required by the particular route. With heroin this rule does not obtain. The drug acts in a distinctly different manner when given hypodermically than when administered by the mouth. Given by the mouth, it is not an antidoloric, nor true narcotic. It will relieve to some extent slight intra-pectoral pains, but is unreliable. In one-twenty-fourth grain doses it frequently nauseates and gives rise to distressing sensations of oppression. One-thirty-sixth grain as an adjunct to various expectorants gives the most satisfactory results.

But heroin hypodermically is a distinct narcotic and a substitute for morphine, its advantages over the latter, in most instances, narrowing the field for morphine very greatly.

The relief from pain is as complete and as rapid;

It is reliable and less dangerous;

The familiar stimulation, excitement, enticing exhilaration are much less, or entirely absent;

Its effects are more transient, lasting only from two to six hours, according to dose

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and character of pain;

Narcosis is less profound;

Nausea, vomiting, coated tongue, malaise, "biliousness" and similar sequelae are exceptionally rare;

Constipation is greater, is less persistent and amendable to prompt relief;

In asthmatic attacks is is not reliable;

In renal or hepatic colic it is not reliable in ordinary doses and is best combined with one-fourth grain morphia;

In cases complicated by chronic nephritis or tuberculosis it is safer than morphine.

The concomitant administration of one-fortieth to one-twentieth grains strychnia to heroin in most cases enhances its beneficial action; it is preferable to atropin. In shock, large doses are frequently necessary and may demand repetition in thirty to forty-five minutes.

In this connection I will recall to your minds the excellent paper on Shock, read before this society at its first annual meeting by Dr. Carey P. Rogers, of Jacksonville, in which he endeavored to show by blood pressure charts the deleterious effect of nitroglycerin on shock, and stated that its action was closely allied to the cardio-vascular mechanism in shock itself, causing an instantaneous fall in blood pressure. On the other hand, his charts demonstrated that the rise in pressure after strychnia was gradual and well sustained, and that it was probably the most reliable cardio-vascular tonic at our command.

In a long series of experiments and observations on the treatment of shock by Dr. J. W. Crile, of Cleveland, Ohio, he demonstrated that shock is due to exhaustion of the vaso-constrictor *centre*, and that therefore such stimulants as strychnia and similar agents were not indicated.

In other words, in his experiments on dogs he came to the same conclusion regarding the use of strychnia as did Dr. Rogers in his observations with nitroglycerin, and both of these conclusions are so at variance with the apparent results of our past clinical experience that we have hesitated each time in repeating the methods which seemed to give us such excellent results in the days of our faith.

The administration of adrenalin, as advocated by Dr. Crile, is, in my opinion, a decided advance in the management of shock. The injection of 10 to 20 minims as the initial dose, with ⅙ gr. or more of heroin hydrochlorate is usually followed by a response in 10 or 20 minutes. If no amelioration of the condition is observed after 30 or 40 minutes, repeat the dose. The intravenous injection of adrenalin and hot salt solution is strongly recommended. In the absence of adrenalin, do not hesitate to give 1-10 grain strychnia, 1-50 grain nitroglycerin with ⅙ to ¼ grain heroin hydro; and if patient is very cold and no artificial heat promptly procurable put 1-50 grain nitroglycerin on his tongue and it will act more rapidly than the hypodermic injection. Heroin "fiends" are rare and the habit is easily controlled. The dose of heroin hydrochlorate is 1-12 to ¼ grain. I have never seen a dangerous case of narcosis from its use.

In conclusion, the field for heroin is greater than that for morphine, but it cannot supplant it.

Traumatic Pluro Pneumonia from Railway Accident.†

By John H. Miller, M. D., Cross Hill, S. C.

During month of May, 1898, I was called hurriedly to see John B., a negro section hand said to be badly injured by lever car accident two miles south of Mountville, South Carolina.

History given in report by section master and hands that consisted his crew was: We were running our level car in a swamp on fill of the Leaman branch, four persons on it according to boss. The injured John was sitting down on the body of car with his feet hanging in front. An o'possum ran over the track, two of the hands saw it, hollowed and jumped off the rear end of car, ran down the embankment after the game; this boy John understood them to say rear end collision by train; more than probable this boy was partially asleep as negroes generally are when not at actual work, jumped and fell in front of the rolling car and by its momentum ran over him. He was placed on car and brought back to Cross Hill to me.

On examination found the right clavicle with three upper ribs fractured on same side, with much contusion and bruising of the soft parts. He was an able-bodied negro otherwise and in perfect health.

I had him taken to a negro boarding-house and had him thoroughly bathed and cleaned up.

I proceeded to set in juxtaposition all the fractures, after cleaning with warm saline solution with tincture of green soap, then sponged off the surface with alcohol and lastly with listerine. I dressed the clavicle by using separate bandaging, then put on the broad chest bandage to give uniform pressure and gave it close attention that the bandage fit snug the contour of thorax so as to bring the fractured ribs in apposition properly and relieve the nervous tension that this kind of wound always produces,

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even in a negro. Then I put him resting by giving a hypodermic of ¼ gr. morphine and 1-150 of atropine and the only one used being sufficient. Twelve hours after I gave him a pellet of calomel and soda each 1 gr. fresh every two hours for twenty-four hours, then followed and opened the bowels with castor oil ½ oz. and ten drops spts. turpentine, repeating every hour until three doses were taken, which had a beautiful effect by reducing the already rise of temperature. After this I gave him every four hours 1-10 gr. mercury for three days as an alterative and depletant of liver, at that time of year, that is my experience now in this suddenly spring warm weather. On the third day I had the typical rales of the disease, but kept my bandages in position so as to properly support the chest.

He after running an uncomplicated course made a nice and quick recovery, and by meeting all indications I dismissed him well on the fortieth day with well united fractured points.

This paper is to only show, that by thoroughly cleaning up all wounded parts, preventing outside infection, part of the battle has been won; with well directed treatment keeping our diseased parts at rest.

I could go on minutely giving daily temperature and treatment, but recognize that it would be totally unnecessary before this body of physicians and surgeons, and only touch the vital and main points merely to relate case without trespassing on your valuable time.

The Treatment of Fractures of the Skull—Trephining and Results.†

By Dr. W. E. Norton, Savannah, Ga.

Fractures of the skull, because of their serious sequlæ, call for skillful surgical care, and trephining should be resorted to regardless of the absence of pressure symptoms in all cases of compound fractures of the vault.

The dangers of sepsis from opening the cavity are great, but the dangers of allowing small fragments of bone and blood clots to remain are also great, so that the safest plan is to resort to trephining. I wish to report a case that has recently occurred in my practice.

W. T., age 38, boilermaker, on May 30th was engaged in testing the strength or capacity of a boiler; the other workmen had been warned to move away, but this man, noticing a loose nut, stepped forward to tighten same, when the explosion occurred. A 4x4 inch nut struck him just at the inner margin of the left supra-orbital arch, and deflecting outward and upward, tore out the skull for a space of about 3½ inches in length and ¾ of an inch in breadth. I ordered him moved to the hospital and immediately put him on the table. After cleansing the wound and removing a number of small fragments of bone, I learned that the dura-mater and pia-mater had been lacerated, and that the brain beneath portions of the superior and middle frontal lobes was destroyed; the fracture extended downward within the orbit, and a spicule of bone an inch long was discovered protruding downward, and fixed between the internal rectus-muscle and the eye. This was removed. From the upper portion of the rent the fracture extended backward about three inches. The anterior branch of the middle meningeal artery was seen pulsating over the inferior angle of the parietal bone and was ligated with catgut. After removing the small shattered fragments, and the larger fragments that were firmly impacted, some entirely detached from the periosteum, and others still attached to the periosteum and dura-mater, some so firmly wedged in that portions of the adjoining margins of bone had to be chisled away before the fragments could be removed. The destroyed portion of the gray matter (about a tablespoonful) was removed with a scoop, and the remaining shattered fragments of skull and blood clots were then washed out with hot sterile solution. The large fracture extending backward from the rent was approximated with great difficulty. Considerable oozing took place from the chiseled margins but hot gauze pads were applied with pressure and the bleeding soon stopped. The torn edges of the dura were brought together as well as possible with fine catgut, and the cavity was packed lightly with iodoform gauze, for in spite of precaution I feared infection, and no sutures were taken in the integument. Thick gauze dressing was then applied. The patient remained in a state of coma, with stertorous breathing for three days. He would rouse if pinched or shaken, and exclaim inaudibly, but would immediately lapse into the former state. During this period he was catheterized and given stimulants hypodermically. On the afternoon of the third day he opened his eyes and called for water, and from that time partial paralysis was noticeable for a week, but improved when the patient was put on strychnia. The gauze drainage was continued and at the termination of a week the integument was freshened and satured *without* anaesthesia. Small gauze drainage still left in lower opening of the wound; cerebrospinal fluid continued to drain, and at the termination of the second week drainage began from the

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frontal sinus, through the infundibulum which communicates with the nasal fossa and opens under the middle turbinated bone toward the front. The cerebrospinal fluid continued to flow through the nose for several days, and up to a few days ago the patient could hold his nose and blow air through the opening in the forehead. His mind is rather doubtful at times, and memory very poor, but no epilepsy so far. Patient is now making daily trips to my office.

Ocular Wounds and their Treatment.†

By J. Lawton Heirs, M. D., Savannah, Ga.

Mr. President and Gentlemen of the Association of Seaboard Air Line Railway Surgeons:

When requested to present a paper before your body, the honor was accepted with no little degree of hesitancy. After deliberating I at length decided to say a few words about Ocular Wounds and Their Treatment.

Much could be said on this subject, in fact a volume could be written and yet leave the field incompletely covered. It is not my purpose to make any claim as to originality or priority of treatment. But knowing eye injuries to be of such frequent occurrence among railway employees and especially in their shops, I have selected it with the hope of eliciting a liberal discussion that we may all profit thereby. The variety of eye injuries are numerous, both in number and degree, but for the sake of convenience, Gruening has divided them into four groups: Injuries by contusion, injuries by penetration, injuries by penetration with retention of foreign body, and injuries by light, heat and chemical substances. Time will not permit the discussion of all these divisions, consequently I prefer to confine myself chiefly to those with and without the retention of foreign bodies, such as are most frequently met with in a railroad practice.

Lid wounds may be punctured, lacerated or incised, according to the agent producing the same. All possible care should be taken to prevent sepsis and to encourage healing by first intention. For in case of sepsis the eye-ball may become involved and if not, the lid healing by granulation will surely produce a scar, resulting in most cases in the contraction of the lid, producing either intropia or ectropia and necessitating further surgical interference, to say nothing of the disfigurement of the patient for the remainder of his life. In cases of incision or laceration of the lid the greatest care should be taken to secure a perfect coaptation of the parts or a deformity is liable to follow, with consequent bad results. On account of the great number of lymphatics and the vascularity of the lids and tissues of the eyes, each wound should be treated as an infected one. Every particle of foreign matter should be removed from the wound and the surrounding parts thoroughly cleansed with a solution of bichloride 1-3000. A covering of antiseptic absorbent gauze and cotton should be applied and secured by a roller gauze bandage, or if permissable, adhesive strips may be used and the dressing kept constantly saturated with a solution of boric acid, or preferably a solution containing ac. carbol. C. P. gr. ⅛, cocain gr. ½, ac. boric gr. xv., aq. dist. 1 oz. This solution has to be used to be appreciated, although some of the drugs are in small quantities; I believe they unite chemically and make what we might term a phenoborate of cocaine.

The Cornea.—An injury of the cornea may mean a simple abrasion of the epithelium or its complete destruction, according to the agent producing it. Cinders and other foreign bodies lodged in the cornea can easily be removed under cocaine anaesthesia and should be done under the strictest antiseptic precautions. If the injury be in or near the pupillary field I prefer to instill a few drops of atropia, after which I bandage the eye and apply the wet dressing. In perforated wounds of the cornea with a prolapse of the iris, the protruding portion should be incised with scissors; and to guard against infection, the actual cautery should be applied to the stump. Atropia should be used to prevent iritis.

If for any reason I do not see the patient until two or three days after the accident and protruding iris is inclined to slough and there is no positive indication of infection, I prefer to allow it to remain undisturbed, for in this condition it is less liable to infection than if incised.

Perforating scleral wounds may be closed by a careful suturing of the conjunctiva and a light pressure bandage applied and kept constantly saturated, as above described.

Perforating wounds of the eye, with retention of the foreign body, is of grave importance. Most frequently they consist of particles of iron, steel, and copper, fragments of glass and stone, and in some cases splinters of wood.

If the iris or ciliary bodies be injured a hemorrhage will follow occluding the pupillary field, thereby preventing a satisfactory examination of the fundus. Therefore, I wish to emphasize the importance of ascer-

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taining, if possible, the nature and character of the foreign body entering the eye, as it will aid materially, not only in its removal but in the making up our prognosis.

Particles of steel and iron may be removed by the judicious manipulation of the Giant Electro-Magnet with the saving of the globe and perhaps some vision. But should the foreign substance be a fragment of stone or glass, or anything we cannot magnetize, then the chances of saving the eye are less hopeful. Many leading oculists have used the X-ray, and by the aid of the skiagraph, have been able to locate the position of the foreign body. In one case that I had about two years ago, I was able to locate and see plainly, with the aid of a fluoroscope, a splinter of iron about the size of the lead in an ordinary pencil and ⅞ of an inch in length, which had passed through the cornea, iris and lens and lodged in the posterior end of ciliary bodies.

In injuries of any magnitude, as soon as the eye is given the necessary attention the patient should be put to bed and immediately given a mercurial purge, followed by a liberal saline, preferably sulph. of magnesia.

In case of infection I prefer to follow my first purgation with small doses of calomel and soda, t. i. d. to the point of toleration. Just how much effect the mercury has of subduing the infection I am unable to say, but this procedure has certainly worked well in my cases.

TO SUMMARIZE.

1. No eye wound however slight, should be regarded lightly.

2. With lack of care the most trivial may become of grave import.

3. Surgical technique is as essential in ocular practice as in major operations.

4. That a wet dressing is pre-eminently more satisfactory than a dry one.

5. Simplicity of treatment should take precedence over complex methods.

Sterilization of Railway Coaches.*

By H. M. Wilder, M. D., Charlotte, N. C.

MR. PRESIDENT AND GENTLEMEN:

Permit me to bring to your attention the idea of sterilization of railway coaches and sleeping cars.

Within the last few days I have devised a plan by which this can be accomplished. It consists in the construction of a large tube or boiler-like arrangement into which rails may be laid on "I" beams, and into which the coaches to be sterilized may be run, and this may be done by sterilizing one or more at the same time. A lid sufficient in size is rolled over, and the end or lumen of that great tube is closed up, so the coaches are contained in an air tight boiler-like construction. The air is then pumped out of the tube containing the coaches, and when it has been sufficiently exhausted from the great tube, a valve is turned, the engine stopped, and chemical fumes can then be infused in the vacuum tube containing the coach or coaches, as the case may be, and allowed to stay two or three hours before the cars are taken out of the vacuum tube, when, I dare say, that there will not be a single micro-organism, bug, flea, pediculi or other living creature of organic existence alive to tell the tale, for it stands to reason that after the vacuum has been pushed to fifteen or more pounds pressure to the square inch, that there will not remain enough of the elements of the air in the vacuum chamber to sustain any form of organic life. And after the said chamber has been exhausted of all possible air for the period of two hours and the after infusion of some chemical fumes, like that of formaldphyde gas under pressure, which may be infused in the vacuum by means of turning a valve which allows the gas to flow in the chamber that has been highly evacuated of all air elements, and it is predicted that the fumes of formaldehyde gas will go from one end of the chamber to the other with almost the velocity of a bullet shot from a rifle, and that it will permeate every fabric, crevice and crack in every coach, and if formaldehyde gas is used not a single thread of the upholstering or curtains of the finest Pullman coaches will be affected in the least.

This sterilization is thought to be an improvement over the present way of doing the same by closing down windows and ventilators of coaches and vaporizing chemicals on the inside of the coaches, which must appeal to you as an inefficient plan as compared to the cold vacuum sterilizing plan as described above. It appears that this will be of great utility in the sterilizing of trains at terminal points of great railroad systems, where consumptives and yellow fever and other infectious patients have been transported.

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting in Savannah, Ga,, July, 1906.

How to Evacuate the Bladder when Obstructed with Blood.*

By M. P. Perry, M. D., Macon, N. C.

In presenting this report I must beg you to excuse the fragmentary and disconnected manner in which it is written, as I did not know until at the last moment that I would be able to attend this meeting and had to write on the wing, as it were. My object

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in writing this paper is to offer some suggestions in reference to the mode of properly withdrawing blood from the bladder, which is at times quite troublesome to the general practitioner, especially so in the country and small towns where the doctor is thrown on his own resources miles from any skilled assistance and often without the proper instruments. Pardon me for referring to my own work, but I have had to do a craniotomy with pot hooks, saving the mother, I am happy to say; at another time to use a goose quill as a female catheter and numerous other devices prompted by "necessity, the mother of invention." The case I beg to report occurred three days ago, and is as follows: Patient, aged about sixty-five years, with enlarged prostate, suffering with retention of urine. I tried a large soft catheter but failed to enter the bladder. I then tried a small one and very readily emptied the bladder. I left several sizes of rubber catheters with him, as he lived in the country about ten miles from my office. I called to see him twenty-four hours later and found that he had not passed a drop of urine since I left him, although his friends and neighbors had tried persistently with the rubber catheter. I tried to pass the soft catheter but found it impossible, so had to use a silver catheter, which was passed without trouble. I then had patient taken to my town where I could attend him. The next time I passed the catheter several hours later I could not get a drop of urine, as the catheter filled with blood clots each time I attempted to use it, and it being impossible to pass the rubber catheter I decided to stretch the urethra, so I used sounds up to twenty-six French scale and then inserted a large rubber catheter but could get no urine on account of the filling of the catheter with blood. After clearing and re-inserting the catheter a number of times and still could get no urine to flow I irrigated the urethra with very hot water, then inserted the large steel bougie and left it in situ about an hour with an ice pack to the perineum. After which I again used the rubber catheter with same result as before, no urine; I then tried an experiment not entirely free from danger. I affixed a fountain syringe to the catheter with the hope of pushing out the clots but failed, although the bag was held several feet above. I then withdrew the catheter a number of times and finally got the urine to flow through the clots. Now if I had fastened the suction end of a syphon or Davidson syringe to the catheter I feel quite sure the blood could easily have been drawn through the catheter, the urine following, of course.

These cases are rare, in which the blood interferes with the flow of urine. But in railroad accidents we are liable to have bleeding through the ureters, and it might be retained in the bladder, giving the trouble that I have described.

Report of Cases.*

By Gray G. Holladay, Portsmouth, Va.

On looking over my case records for the past 18 months to find some cases to report at this meeting of "The Association of Seaboard Air Line Surgeons," (I having read no paper at the Old Point meeting), I found ten or twelve cases which I think worthy of being recorded. As most of them are of more interest to the general practitioner or surgeon than to us as railway surgeons, being cases of resection of the intestine, double uterus, operation for typhoid perforation, gall-stones, etc., etc., I selected the four following cases, as they are strictly railroad cases, that is, they fell into my hands as a railroad surgeon.

In reporting these cases I do so more with a view of showing the various injuries which we are called upon to attend and the great responsibility resting upon us as railroad surgeons than to tell "what operations I have performed. In very many of our cases time counts for a great deal, assistance is often hard to obtain just when needed and the resulting liability of the Company vastly increased.

This, however, is aside from the question, gentlemen, and I crave your indulgence while reporting these cases. Between the first and the fourth case almost the entire domain of surgery lies, for the first case is one of a simple fracture, though a peculiar one, and the fourth a case which required a very different operation and very careful after-treatment.

CASE I.—W. J., colored, laborer. This man while at work unloading rails from a flat-car had one to "slew" around and strike him on the leg. The force of the blow was sufficient to break both bones of his leg and to knock a piece of the tibia backwards (of course, thereby breaking the bone in two places) corresponding in size with the head of the rail. It was with much difficulty that this "depressed fragment" could be gotten back into place, but at last it was done; the leg put up in a plaster cast and a perfect result obtained.

CASE II.—B. M. H., white machinist. While at work and for no special reason this man was struck over the head with an iron jack-lever bar. The blow was struck about 5:30 p. m. and was of sufficient force to knock the man down, and upon his attempting to rise he again fell. On attempt-

*Read before the Association of Seaboard Air Line Railway Surgeons at its meeting in Savannah, Ga., July, 1906.

ing to arise the second time he succeeded and seemed all right and did some walking. In fact he walked part of the way to my office where I saw him about 7 p. m., and at that time he complained of nothing but a "slight headache from a scalp-wound." Upon examination nothing could be found to indicate trouble except a small cut on the head and the fact that his pulse was 60. When, from the weapon used and the force with which the blow was struck one would, after two hours, at least have expected unconsciousness, paralysis, or some symptom indicative of trouble, but except a slow pulse, which might have been natural, there was nothing. The cut was a contused one about 1½ inches long with clean cut edges and obout 2½ inches above the right ear. I suggested to the patient that he go to the hospital where I could more thoroughly examine the wound and, if found necessary, operate.

While I was at the 'phone talking to the hospital I am told the man had a slight chill(?). I think, perhaps, instead of being a chill this was a slight convulsion.

Upon his arrival at the hospital I had him given chloroform and then enlarged the wound, when I found a fracture of the vault of the skull on the right side with possibly 1 1-16 inch depression. As this fracture was bleeding (or as blood was coming from it) very freely I trephined through it and am frank to say was much surprised at what I saw; a clot which proved to be three inches long, two inches wide and about ½ inch thick. I cut out more and more bone so as to get at the source of the hemorrhage, ligated the anterior branch of the middle meningeal (which was torn) the cerebral(?) and then found that part of the hemorrhage, at least, was coming from a fracture at the base of the skull, anterior fossa. The appearance of the dura clearly indicated that there was also a sub-dural clot, so that I opened the dura and removed a smaller clot; there was also free bleeding from the brain substance. Do what I would I could not check the hemorrhage, and as the patient's condition was now critical I hastily closed the wounds, first making a counter-opening and packing with gauze, andhad the man removed to his bed. I am free to admit that I did not think he would live until morning or that he would ever regain consciousness, but to my surprise, as soon as the effects of the chloroform had passed his mind became perfectly clear and has remained so. The wounds healed by primary union and in four weeks he was discharged from the hospital and is now doing his usual work.

Case III.—K. R. R., white, railroad engineer. This man was in the cab of his engine at Branchville, Va., looking from the window while a freight train was passing his train. Something struck him on the head, and he was found a few moments later unconscious on the floor of his cab. When I saw him about twelve hours later he was still unconscious, although he had spoken and had for a few moments seemed rational. As soon as I could get him to the hospital I operated and found a very small triangular wound of the scalp about two inches above the left ear, and upon enlarging this an extensive fracture was found running forward in a curved direction. I trephined through this fracture and found a large epi-dural clot and a small opening through the dura where a spicule of bone had been driven. There was quite a large contusion of the brain substance and the dura looked, so far as it could be seen, inflamed, and showed six or eight hemorrhagic spots which I thought was a beginning meningitis. Quite a bit of bone had to be removed on account of the character of the fracture. The patient was put to bed and was unconscious(?) for two days and did not regain perfect consciousness for ten days, and for a day or two longer had "flighty spells."

He has never yet recalled where he was when he got hurt nor how it happened, nor anything about it. He is now perfectly aware that for ten days after the injury he was not right in his mind, but thought he was still running his train as usual, and frequently speaks of the trips he took when he was sick. His recovery in every way has been perfect. In two weeks he was up and about. It was a little strange to have these two cases in the hospital at the same time and part of the time they were in the same room. A few days after this man left another engineer was in his room with a similar injury received in a similar manner. Both are now perfectly well.

Case IV.—M. J., colored, fireman. This man was shot one night at Millbrook, N. C., at 11 p. m., and I saw him the next day at 10:30 a. m. In the meantime he had done some walking, but when I saw him he expressed himself as being perfectly comfortable and suffering no pain, although he did seem nervous and somewhat excited. On examination I found three bullet holes, two of entrance and one of exit. One ball had entered just under his right collar-bone and had emerged under his right arm, making what was clearly a "flesh wound." The other ballĕhad entered three inches to the left and on a level with the umbilicus. It could be both distinctly seen and felt just above the left trochanter major (from which point I removed it). His abdomen was slightly distended and possibly there was

some rigidity, his temperature was 99.6, his pulse 96 and his respirations 22. As he was so comfortable and as all of his symptoms were apparently so easily accounted for I decided to wait awhile before operating. Later his temperature went up to 101.2, his pulse to 98 and his respirations to 24, but as the rigidity was markedly increased I decided to operate at once.

I opened him up through the track of the bullet, and upon getting through the skin into the subcutaneous fat I found the omentum prolapsed through the deeper portion of the hole. The bullet had entered with a sharp upward inclination and the hole in the skin was not right over that in the deeper tissues. As soon as the omentum was replaced blood came through the hole in such quantities as to greatly obscure the field of operation. Upon getting into the abdominal cavity I found it to be full of blood with some faecal matter. After a very short search, two perforations and a tear 1½ inches long were found in the descending colon, together with several holes in the omentum and mesentery. These were all sutured with Lembert sutures. As the hemorrhage was still going on a further search was made, and after much difficulty and a practical evisceration of the patient there were found in the small intestine six perforations. As these six were in a space of not over four inches I was afraid to try sutures and so decided upon a resection. The patient's condition was such as to make haste an imperative duty, so as the quickest method I selected Murphy buttons. The resection was done, taking but a few minutes of time. There was still a good deal of hemorrhage whose origin I could not find, although both kidney and spleen were examined. Gauze drains were put in and used for some days. On the fourth day the man's bowels moved naturally, the first stool being about normal, the next consisted largely of water-melon seed. He told me later that his last meal before he was shot had been composed mostly of water-melon. His convalescence was uneventful up to six weeks from the day I operated, when he suddenly ran up a temperature of 103.6, pulse 112. The next morning his temperature was 102, pulse 100. No cause was ever found for this rise, unless it was from indigestion. The button, which by the way had been very recently used before, was passed on the twenty-eighth day.

The Relation Between Neurosis and Traumatism.*

By Everard Hamilton Richardson, M. D., Atlanta, Georgia.

Since Mr. Erichsen's propaganda, first published thirty-eight years ago, upon spinal concussion, yclept railroad spine, with its long train of remote and secondary effects, following real or fancied injuries of the spine, the medical profession has been startled by the great array of phenomena alleged by Mr. Erichsen to have been induced by trivial injuries to the spinal column.

It is no exaggeration to state that the appearance of no work in the annals of medicine or surgery has ever produced a profounder impress upon the professional and lay mind than this treatise by the distinguished author.

The ingenuity of man has conquered the seas, brought down the lightning from the skies, and made electricity subserve the behests of mankind. A Kentucky "backwood's man," Ephraim McDowell, conceived and with his rude scalpel first successfully performed ovariotomy. It is not unreasonable to declare that none of these wonderful discoveries have produced wider effects upon mankind than the publication and the promulgation of Erichsen's concept of spinal concussion in 1868. Millions of dollars have paid tribute to his erroneous views, disseminated to the uttermost parts of civilization. The object of this article is to treat of both the primary and so termed secondary effects of spinal concussion, as described by Erichsen, and we wish to emphasize the fact that Erichsen's railroad spinal phenomena he alleges were the outcome of spinal concussion, coming on months and years after alleged injuries. They did not arise in his esteem from such grave accidents as fractures or dislocations of the spinal vertebrae, hemorrhage into the spinal cord, rupture of its ligaments and muscles, laceration or compression of the cord and nerves, spinal meningitis or myelitis following contusions of the cord, exudation into the cord itself, all of which have characteristic symptoms, or any other gross lesion of the spinal column discoverable by *objective symptoms*.

Note, please, that he deals principally with the subjective, intangible and *non-understandable* symptoms, which in this age falls upon our material ears like the far-away sound of the fairy stream of mythology, leaving us in a field of fancy and uncertainty.

Erichsen declares that "not only do most

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serious, progressive and persistent symptoms of concussion of the spinal cord, often develop themselves, after apparently slight injuries, but frequently when there are no signs whatever of external lesion." Among the secondary lesions following spinal concussion he enumerates five different varieties of injuries affecting the eye alone. In an examination of 60 consecutive cases of obscure spinal injury without fracture or dislocation or other appreciable injury of the cord, "there was impairment of vision in 42 cases." A great number of his cases developed months and years after the receipt of the injuries, showing that no complaint of accident had been made at time of receiving injury. Strangely enough he states that the "various anatomical constituents of the spine in concussion have been severely jarred, shaken or strained," and no prior subjective or objective phenomena exhibited! We wonder how he found this out. He says, "when a person has received a concussion of the spinal cord from a jar or shake of the body, without a direct blow on the back, or perhaps on any portion of the body, and the symptoms have progressjvely developed the prognosis will always be unfavorable, becoming incurable, followed by paralysis of sensation and motion, and finally death without organic lesions. I intend no discredit to Erichsen, but at the time he wrote little was known of the physiology or pathology of the nervous system, and he was only a surgeon. From his own description it is very clear that he did not recognize the difference between LocoMotor Ataxia and paralysis, for in a case of posterior spinal degeneration he describes the symptoms as paralytic when the autopsy made by Lockhart Clarke demonstrated "the case to have been one of primary degeneration of the posterior column of the spinal cord"—(Baily.) Most of his cases were founded upon hypothetical surmises. 'Tis true that Erichsen's mystical and foggy cases would deserve no consideration in this enlightened age, but for the serious nature with which a large portion of the medical profession now consider them. In the litigation arising from alleged injuries vs. railroads today in America, spinal concussion is considered a factor in half of the cases. Let us for one moment consider what concussion of the spine is—then consider the nature of the spinal column itself.

We take into consideration first, the nature and functions of the spinal column. Owing to its superlative importance to the animal economy, the spinal column is the strongest organ in animal creation, formed for the purpose of supporting the entire body. The spinal cord securely enveloped in a strong bony canal is protected from violence, not only by the bones of the vertebrae, but is safe-guarded from injury by cerebro-spinal fluid, membranes, cartilages, ligaments, capsules, nerve trunks and strong muscles. The spinal cord through its connection with the sympathetic system of nerves and its own afferent and efferent nerves furnishes innervation or life to the entire body, and in the highest animal development—man—discovers worlds and seas —dominating all the forces of nature. As a consequence it is almost impregnable against concussion, and not susceptible to injury except from the severest blows.

Concussion of the spine, whether caused by a direct or indirect blow, like concussion of the brain, is characterized by the rapidity of its action and effects. If the blow is sufficiently severe death may ensue instantly, without recognizable molecular or cellular changes of the nerve tissues. Allen McLane Hamilton, on page 63 of the last edition of his great work on Nervous Diseases, says: "Concussion of the spine is not the common thing it is supposed to be, and if it does occur it is, as a rule, evanescent and expressed by short lived symptoms, such as fleeting disturbances of sensations, and a certain degree of motor weakness." It is never chronic *per se* and always terminates in death or recovery in a short time.

It is of value to us to contrast this condition with organic lesions of the spine, all of which have characteristic objective symptoms. The upper cervical region of the spine that has received a severe blow is followed by instantaneous death. Important nerves, as the pneumo-gastric or phrenic in this region may be injured by a strain when the cervical vertebrae are twisted. The alarming symptoms, however, of paralysis admonish us of the serious import of the injuries. Where injuries to this portion of the spine are not so severe as to produce death, it immediately produces paralysis of one or all of the limbs. A blow or injury from violence to the lower portion of the cervical region of the spine if not sufficiently severe to produce death is at once followed by paralysis of motion and sensation, loss of power of the sphincters with retention or incontinence of both urine and faeces. Paralysis, hyperaesthesia or anaesthesia quickly ensue after severe injuries of the dorsal or lumbar region of the spine. Coming down to such gross lesions of the spinal column resulting from trauma it is superfluous to consider fractures and dislocations of the vertebrae, laceration of the cord and its membranes with their legitimate sequences, all of which are diagnosed by patent objective symptoms, and it is not germain to the purpose of the writer to narrate them or enter into the treatment of any

of the forms of injuries treated of in this paper.

But passing through the long years of midnight darkness—the acquisition of real knowledge and truth is always painfully slow—cast upon the subject by the writings of Erichsen and his disciples, and walking into the light of modern thought and investigation, we wonder at the amazing darkness that has so long enveloped the medical and professional mind upon Erichsen's so-called "railroad spine."

The researches and observations of modern clinicians in their search for truth in this domain of surgical and medical science have demonstrated the folly of Erichsen's teachings upon this ancient and worn out subject. Though once deep rooted and ramifying into every branch of the medical profession—sacred as the Delphic Oracle, happily, they are now myths of the past, in the esteem of the scientific physician and neurologist. The traditional nebulous doctrine of Erichsen's concerning the remote effects of so-called concussion of the spinal cord are no longer recognized among intelligent physicians as etiological factors in the production of a long train of nervous phenomena, sometimes following injuries to any portion of the body, and oftener occurring without having been preceded by any injury at all. Modern students of the nervous system with clinical and scientific facts, emancipated from the mistaken medical lore of the past, have shed new light upon the ambiguous knowledge of Erichsen and his followers. Their dicta no longer obtains in the effulgent light of the twentieth century.

In 1878 Allen McLane Hamilton, of New York, and Walton, of Boston, in 1883 recognized the symptoms attributed by Erichsen in 1838 to alleged concussion of the spinal cord, as those of hysteria. Page, of London, a surgeon of wide experience in these accidents, carefully analyzed his cases of the character under consideration, and in 1883 published the result of his researches and experiences and concurred with Hamilton and Walton of America that his cases were hysteria. Oppenheim (1889) Strumpell, and Westphal of Germany also gave the phenomena of symptoms following injuries, a classification of their own not dependent upon spinal injuries. Charcot, of France, the world's greatest authority upon the diseases of the nervous system, did not consider the group of symptoms alleged by Erichsen to be due to trauma of the spine to differ in any way from the usual form of hysteria and neurasthenia. Dana, Eisenllolohr and Schentz concurred with Charcot. Bailey in 1894 placed himself upon record as an advocate of the conviction that the cause of the symptoms of alleged tramau was mental and not physical. Leftbre, Janet, Raymond and all modern writers on the subject hold the same view, averring that the mental factor may often be due to *auto suggestion.* Suggestion may also emanuate from others, as from interested friends, the coddling doctor or designing lawyer who may be on the *qui vive* for a suit for damages. Syphilis is also a fruitful cause of neurasthenia. Erb in *Loco- Motor Ataxia* "finds preceding syphilis in over ninety per cent. of his cases." As all authors agree that the pre-ataxia stage may exist for months and years without the patient or physician suspecting it, in which symptoms have suddenly become active and severe as a result of slight injury or shock," (Baily) it becomes highly important for the surgeon to examine carefully and consider the supreme importance of syphilis as a causal factor in all cases presenting the symptoms of Erichsen's railroad spine. Since Brodie's declaration in 1837 that "paralysis may depend upon impairment of will power," hundreds of cases have been recognized by numbers of the medical profession. Page, Strumpell, Russell, Reynolds, and a host of others have confirmed the views of Brodie; but to Charcot is due the credit of giving the rational cause of the relationship between traumatism and hysteria. "The influence of traumatism is an influence of suggestion. The shock of the injury acts as a hypnotising agent, the local pain calls the patient's attention to the parts injured, and suggests the symptoms of paralysis, or contraction, or anaesthesia or whatever the symptoms may be—all of the symptoms may be made to disappear by hypuosis." Modern authors regard Erichsen's cases as those of *functional nervous disorders*, following railway and allied injuries, or no injuries at all, occurring only in persons of unstable nervous systems and now belong to the domain of the neurologist. These cases may come on suddenly or develop slowly—oftener the latter.

As a loss of will-power is the basic causal factor in the production of the nervous group of symptoms heretofore taught by Erichsen as following so-called concussion of the spine, *accident aboulia* (lack of will power) is the comprehensive term given by the world's greatest authority, Hamilton, as most expressive of the conditions described by Erichsen. And the best exposition of the rational or operating cause, producing the Erichsen symptoms is given also by Hamilton, as follows: "To understand their origin and significance we must consider the relation to conscious and subconscious cerebration, the suspension of

higher control, and the development often of a certain automatism following the repetition of an idea in the intellectual sphere until it fully dominates the conduct of the subject."

I think that Shakespeare fully understood this subject when he made Hamlet tell Horatio "that there are more things in heaven and earth, Horatio, than are dreamt of in your philosophy." I believe the brightest jewel in Hamilton's intellectual crown in his above exposition of this subject.

Psychasthenia or mind weakness usually exist in all cases who are not malingerers or rank frauds. These cases may follow any accident or mental shock, whether the subject has received bodily injuries or has simply witnessed a tragedy, and escaped entirely any injury. Osler, a modern physician of renown and well known conservatist, considers this malady a hystero-neurosis not dependent upon the reception of a physical injury, but purely mental, as instanced in two cases coming under his observation. One that of an engineer of a railroad who witnessed the killing of a small child by his engine, wno was unnerved and prostrated by the pathetic accident. The other case was a naval officer who had been shocked and exposed by the wrecking of his vessel upon the seas. In neither of these cases did Osler believe that the history of the cases indicate that any central nervous lesion had occurred, and yet both of them were victims of Beard's disease—neurasthenia. Hamilton states again: "but it is the author's experience that some of the most obstinate cases are those in which there has been neither a history of a dramatic or horrifying accident nor any apparent serious immediate shock or injury whatever, but in which the condition tardily and slowly grows. The subject may have been one of many others to have passed through the same accident, but it is he who is seemingly alone affected." But in such cases where no injuries of importance either to the nerve centers or any other portion of the body have occurred that it is a logical assumption to conclude that "suggestion" emanating either from the subject's own mind or from the advice of friends, the "runners of shyter lawyers" have operated upon the minds of this class of subjects. Doctors themselves have often magnified the symptoms incident to this class of subjects, and "over treated" these cases to the detriment of their patients and families, and those supposed to be financially responsible for conditions preventible by judicious management of such subjects.

I mention on my own responsibility accident insurance as a fruitful cause in the production of these neurasthenic symptoms in neurtic subjects which has often led to such grave mental instability or demoralization of the mind, as to terminate in physical wreck and suicide.

In the interest of truth and to illustrate the correctness of the principles herein enunciated I append the histories of two cases coming under my immediate observation: Case (1) Mrs. P., a most excellent lady came under my professional care several years ago, and who was present in a railroad wreck where several of her traveling companions had been killed and others severely mangled. She was asleep when the accident occurred, she and her husband escaping entirely any injury. The lady upon being awakened so rudely, hearing the cries and moans of her companions, arose at once and hastily dressing herself proceeded to aid those in distress. Approaching for this purpose a lady friend severely mangled, she mutely gazed for a few moments upon the horrible spectacle presented by her friend, when she suddenly sank upon her knees and was removed to her sleeping berth in a prostrate condition. When I approached her a few hours afterwards to carry her to her home or to a hospital, she averred that she could not stand or walk; she was placed upon a stretcher from the ambulance and at once carried to her home. After my examination I assured her that she had happily escaped any injury and would after a few days quiet and rest be alright. She and her husband assented to this view and each assured their friends that no injuries had been received. But beginning the next day, husband and wife were besieged by officious friends, who asseverated that they were silly. She had been *severely injured* in a railroad wreck, and that they should demand heavy damages. I continued my visits until the subject could ride in her carriage to my office, when I administered static and faradic electricity for several weeks for its psychic effect alone. From the beginning I purposely avoided the use of a catheter, and at no time during the treatment did any organ refuse to discharge its every function. This was a strong minded patient, and I succeeded in gaining her confidence. In six weeks I saw this lady walking half a mile from church. After I had dismissed the patient her husband and, I think, the railroad authotities each called in separate surgeons to examine this lady. What their diagnosis and prognosis was I never learned, but I have since been informed that the railroad compromised the case by paying the sum of five thousand ($5000.00) dollars. This case did not develop a single symptom of injury to the nervous system or neuras-

thenia. The case was one of temporary mental shock, which under a different environment would have resulted in complete recovery in ten days from receipt of the accident. In fact her general health continuously improved, and today she is bright and vivacious, a perfect type of physical and mental womanhood. And yet I am quite sure most juries in the country would have given her a large verdict for damages.

Case (2.) I append the history of the following case because of its exceeding interest and remarkable denouement:

Mr. A., American, aged 55 years, freight conductor. The sequence of this case shows that he was a "professional," fruitful in resources and possessing unusual acumen.

On December 31st, 1903, while working for the S. A. L. Railway, at night climbing from a car the "hand hold" pulled loose, he falling to the ground only a few feet upon his back. He had been working for the S. A. L. Railroad only 13 days. Asked on the witness stand by his attorney, Hon. Hoke Smith. "What was your capacity to do the work of a freight conductor before you got hurt?" Ans. "Splendid, just as good as I ever was." Visiting him at 11 o'clock at night a few hours after his alleged injury I stripped him, making a thorough examination. Found his temperature, pulse and respiration normal, no abrasion or discoloration of skin or other evidence of his having sustained any physical injury. His subjective symptoms were loud and continuous. He lustily complained of pain all over his body, but he overacted his part, and there was such an absence of harmony between his physical condition and the utterances that "proceeded out of his mouth" that involuntarily a vivid picture of an "old fox" ran through my mind. Nevertheless, I visited him for five consecutive days, observing him closely. On my first visit I drew his water and found it normal, and applied upon the lower portion of his spine a few adhesive strips only for pyschic effect, never administering a dose of medicine, assuring him that he was not seriously hurt, and that he needed no internal medicine. But he was callous as a stone rock; his will power as a malingerer was colossal, and had it been properly directed might have removed mountains. But he knew his business, he had had experience and he already had been the recipient of large sums of money paid to him from the rich coffers of the railroads. The ravens from heaven had given him food; most excellent gentlemen "dressed in purple and fine linen and faring sumptuously every day" had visited him, administering comfort and unction to his poor soul. But I determined not to stultify myself by visiting this subject again. I shall now turn him over to the estimable doctors who succeeded me.

Mr. A. brought suit against the S. A. L. Railway in Atlanta, Georgia, for $10,000 in the Circuit Court of the United States for Northern District at January, 1906, term of the court, at which time the case was tried.

Dr. C., the eminent physician who visited Mr. A. for the first time about the time I ceased to visit him, testified at the trial "that he found the patient suffering a great deal of pain, high fever, pulse 130 or 140 beats per minute, in great agony, almost in convulsions, passing blood from his bladder and bowels." The doctor concluded his testimony by stating "that I do not believe that Mr. A. will ever get well; I think he is injured for life."

Dr. D., an eminent surgeon who visited Mr. A. half a dozen times, in his testimony to the court and jury stated that he "had intense spasms of the muscles of his back, his back was perfectly stiff, these were possibly the only objective symptoms. On account of pain in his eyes his room was darkened by the exclusion of all light. He presented the combined symptoms and signs of a man suffering from severe injury to his nervous system, as well as apparently a physical trouble in his back. I was satisfied that he was suffering a great deal. He had a little change in the knee jerk, a little difference between right and left sides, and presented the typical train of symptoms of the disease spinal concussion or traumatic neurasthenia."

Dr. F., a surgeon of wide renown stated on the witness stand at the trial "that he had stripped the subject a few minutes ago (his first and only examination of the subject) and made careful examination and found the muscles right at the small of the back shrunken, while on the left side they were bunched up in a state of spasm," a condition easily simulated by a little practice and slight change of position. The doctor concluded his testimony by stating "that this was the only typical case of railroad spine he had ever seen" in his 20 years of active practice as a surgeon.

Dr. V. T. Hubbard, a surgeon and physician of high standing for his culture, ability and probity, alone concurred with me in the diagnosis of this case, whom we visited and most carefully examined March 1st, 1904. He found the subject at his home "walking around, in perfect health." The termination of this case is interesting and deserves to become a classic in medical jurisprudence. I had so strongly asseverated to the able counsellors for the S. A. L. Railway, Messrs. Brown and Randolph, that this subject was a rank fraud, that

they had before the trial begun an investigation of his previous history. They had traced him through Mexico, Indian Territory, Arizona and Colorado. On the stand he admitted having been in those places, but when Texas was mentioned to him he always "shied." He told of having received an injury by a cannon ball passing through his horse while in a charge at the age of 13 under Morgan in attempting to capture a Federal Battery. He recovered from this injury in one week he declared.

Mr. Brown: Q. "That is the only injury you have received until you fell off this car?" Ans. "Yes, sir." Then Mr. Brown's spring was like the tiger's, "deadly and quick and crashing." His quarry was almost at his mercy when Mr. Brown supplemented his question by asking, "Of any kind or character?" Ans. "Yes, sir." Q. "At any time or any place?" Ans. "Yes, sir." Unwittingly the hero of the drama had perjured himself. The closing act in this case was almost tragic and far reaching in its effects upon the subject. Detectives in the court house during this trial brought from the far West failed to identify this man. The case went to the jury, and they promptly returned a verdict for $3,000 in favor of the plaintiff. Immediately, almost in despair, the attorney for the railroad wired to the Claims Attorney for the Missouri, Kansas & Texas Railway Co., in Hill county, Texas, to send them the signature of one Mr. A., who probably had made application to this road for work. They received in reply the signature of different men bearing his name who had worked for them, with the description of one who had sued their road for $15,000 on account of an alleged injury to his back while in their employ, also stating that they had paid him $3,500 to compromise the case; the description and signature fitted our Mr. A. The conductor under whom he had worked for years came to Atlanta to identify him. When confronted by the conductor Mr. A. denied ever having seen him. But a few hours later when his house was being approached by two bailiffs for the purpose of arresting him, Mr. A. jumped from the back window of his house and ran so fast that the two bailiffs could not catch him. The attorneys of the S. A. L. Railway at once sued him for perjury, and he is today *non est inventus*, and a fugitive from justice. After obtaining his verdict against the S. A. L. Railway a new trial was granted by Judge Newman, and on the court docket the case of Mr. A. vs. the S. A. L. Railway is marked "Dismissed for want of prosecution."

Finally, allow me to remind you that the true mission of the doctor is for him to be a messenger of hope and assurance to the helpless and suffering. And he should possess sufficient knowledge and personal power as to place the unfortunate sufferers coming to him for aid under proper environment (not always possible) and so dominate them as to prevent hypochrondriasis, hysterical neurosis and obsessions, or, if you please, traumatic neurasthenia. There are no pathological lesions in this class of unstable subjects, for they come and go like the trackless arrow that passes through the skies, leaving no trace behind. And those cases alleged to have been produced by railroad accidents invariably recover after a "settlement" has been effected. I fain would be fair and just to all mankind, and only the patent and often fatuous efforts of the majority of the recipients of alleged injuries to exaggerate and magnify their supposed injuries has emboldened me to call the attention of the medical profession to this class of accidents, with the view of stimulating our efforts to minimize the evils confronting, especially, the railroad surgeon.

One other observation worthy of attention I wish to mention. "A sound nervous system is an inheritance that only the most strenuous provocation can overturn for any length of time, and when an upset has been accomplished a return to the normal is soon obtained under favorable circumstances" (Berkley). Trauma plays a small part in the induction of neurasthenia. Unstable nervous systems is the conspicuous factor in producing neurasthenia, syphilis, intemperance, poor food, overwork, excesses of all kinds, malnutrition from any cause, chronic Bright's disease, incipient tuberculosis, arterio-sclerosis, and a variety of other diseases are very often the basal factors causing the development of neurasthenia, rather than alleged injuries.

Manifestly the railroad surgeon cannot too closely examine into the personal and family histories of the subjects presented to him after alleged injuries in order to minimize the number of malingerers who often deceive him, and differentiate them from the class who are really injured, the latter commanding our warmest sympathy and most skillful efforts to relieve.

Some Clinical Aspects of Syphilis.—Wild (British Journal Dermatol.) makes some interesting observations upon a study of 1,000 consecutive cases of syphilis treated at the Manchester Hospital for Diseases of the Skin. The cases in question occurred among 20,265 patients suffering from various skin diseases, a percentage of 5.17. Crocker's statistics give 6.1 per cent. for London out-patient practice, while statistics of the American Dermatological Association

give 8.4 to 10.9 per cent. for the past ten years. Of these one thousand cases 76 were cases of congenital syphilis, 55 of primary, 276 of secondary, and 593 of tertiary syphilis.

Of the 76 congenital cases, 60 cases, varying from twelve days to two years in age, showed lesions of secondary type. The 16 cases from three to twenty-six years of age presented tertiary lesions and stigmata of earlier attacks. A point of interest was the absence of any typical Hutchinson's teeth in the older patients. Of the 60 infantile cases 3 died while under treatment, the others making a good recovery and responding rapidly to treatment. Some of these cases were at times hard to differentiate from pemphigus neonatorum; a slight epidemic of which disease prevailed at the time. That parents afflicted with tertiary syphilis can transmit the disease to their children was shown in the cases of women with hereditary syphilitic children, themselves showing evidence of former tertiary lesions. With regard to congenitally syphilitic older children and adults, the writer considers mercury more valuable than iodides, even though the lesions are ulcerations of a tertiary type.

Of the 55 cases of primary syphilis, 14, a rather high percentage, were cases of extra-genital chancre. Four cases of primary syphilis were noted in children from two to four years, a very unusual occurrence.

Two of the cases of secondary syphilis ran a high temperature, one case being mistaken at first for pneumonia. The other case presenting a pustular eruption closely simulated variola. The type of lesion noted most frequently was the papulo-squamous, the macular being next in frequency. The pustular eruptions were fairly numerous. The so-called pigmentary syphilide, seen upon the back of the neck in women, was noted in seven cases. Other co-existing skin diseases were present in a number of cases and formed the chief difficulty in diagnosis. Of these seborrhoic dermatitis was present most often. General psoriasis co-existed in three cases. In four cases, pustular lesions of scabies, in one case lesions of erythema multiforme, and in one case lesions of lichen planus were mingled with the syphilitic eruption.

Brief mention is made of three cases of a form of syphilis rarely seen or described, the purpuric syphilide. In addition to other specific lesions, all three cases showed hemorrhagic papules and hemorrhagic spots.

Attention is called to the considerable difference between the average ages at which the secondary and tertiary symptoms respectively appeared. The average age for the former was 28.5, for the latter 38.7 years. The average age of the tertiary cases is, however, too high for the first appearance of tertiary lesions, as many patients showed scars of previous tertiary manifestations. Eliminating these recurrent cases as far as possible, enough remained to show that five to seven years, as a rule, intervene between the end of the secondary and the beginning of tertiary lesions. The writer considers that tertiary manifestations are more frequent than is generally supposed, 59.3 per cent. of all his cases belonging to this class. Precocious tertiary lesions are not very rare, especially in persons whose constitution is enfeebled. An instance of delayed tertiary syphilis was markedly shown in the case of a physician who contracted a chancre of the finger during a confinement. Severe secondary symptoms followed, after which the patient seemed well till thirty-eight years later he suffered from a typical syphilitic orchitis. As etiological factors in producing, or rather determining, tertiary lesions, the writer considers traumatism and inflammatory affections of the skin to be of great importance. Traumatic cases are best illustrated by syphilitic palms of workingmen. Seborrhœic dermatitis and rosacea frequently precede and determine the specific attack.

He was rather struck by the fact that out of nearly 600 cases of tertiary syphilis there were only three cases of involvement of the nervous system.

With regard to treatment he is in favor of the early employment of mercury. The custom is to administer mercury as soon as the glands in relation with the primary lesion show enlargement. Mercury alone is the drug to be used during the secondary stage and is useful in some tertiary cases, such as nodular syphilides. It should be given with great care when deep ulceration is present. Here large doses of the iodides are indicated. Full doses of the iodides should not be given with mercury, as they aid too much in the elimination of the latter and interfere with its full action.

"On the days when Caruso sings," says Emma Kaufman in Munsey's, "he has a routine that is severe. He receives no one, he speaks as little as possible, and he eats in the same ratio. He has one meal, a light luncheon at two o'clock, and nothing more until after the performance, at midnight. He explains this diet and the reason for it:

"It is not my voice that demands it, but my stomach. There is my weakness. That is not romantic, is it? Nor mysterious, no! nor picturesque!"

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TREATMENT OF ASCITES DUE TO CIRRHOSIS OF THE LIVER.

The medical treatment of this condition has been, and still is, more or less temporary in its results. It consists in the administration of purgatives to relieve portal congestion, the administration of diuretics to promote elimination of fluids and soluble products of tissue metabolism, the administration of potassium iodide to cause absorption of the fibrosis of the liver structure and repeated paracentesis of the abdomen to relieve over-distention and to produce a sort of intermittent drain. The patient is usually treated by the above measures for some time, obtaining only transient and temporary relief until he is advised to go to some resort or spring; this he does, his condition usually progressively increasing until he exhibits all the signs of cachexia. At this stage the case is almost invariably hopeless. The Talma operation for this condition has proven successful in 59 per cent. of cases operated on before the development of cachexia; 43 per cent. have made a complete recovery; and 16 per cent. were greatly improved.

The operation consists of an incision 4 inches in length in the middle line between the ensiform cartilage and the umbilicus. When the peritoneum is opened the ascitic fluid escapes and the abdominal cavity is emptied of the fluid; the pelvic cavity and renal pouches are swabbed out until they are dry. The liver is then inspected and the whole upper surface is rubbed vigorously with a gauze pad. The spleen is then exposed and treated in a similar manner. The omentum is then brought into the wound and sutured to the parietal peritoneum. The edges of the abdominal wound are then everted as much as possible and the free margins of the omentum are fixed on either side as far away from the middle line as possible. The abdominal wound is now closed fixing the omentum in the line of the sutures. The omentum is thus fixed by three lines of sutures. It must be remembered that the more points of adhesion which are insured between the omentum and the parietal peritoneum the better is the result.

The principle of the operation therefore consists in the formation of additional venous communications between the systemic and portal circulations to relieve the obstruction of the entire portal system which is the mechanical cause of ascites in cases of cirrhosis of the liver. Just so long as the normally existing channels of communication between the systemic and portal circulations—, the venous plexus around the oesophagus (coronary and azygos) the anastomosis between the veins of the caecum and colon with the internal mammary and the plexus of veins behind the posterior surface of the liver—dilate and take up the work which the portal system is unable to perform there is no trace of fluid in the peritoneal cavity. But the process going on in the liver itself gradually progresses and with this the obstruction gradually increases until the united efforts of the portal veins and its anastomatic channels fail to return the entire quantity of blood from the viscera and ascites soon follows. The peritoneal cavity gradually fills up with fluid exudate and the liver cells at first become functionally inactive and later show signs of disintegration. The rational treatment under such circumstances is to establish some artificial channels by which the blood from the portal system may be returned directly and therefore relieve the congestion and pressure in the portal system. The development of the vascular adhesions that form around the liver furnish a freer supply of arterial blood to the liver and thus improve the nutrition of the liver cells and greatly facilitate the development of a compensatory hyperplasia which is urgently needed. The operation also diminishes the flow of blood through the liver and the organ is enabled to deal more satisfactorily with the blood passing through it and to reduce the toxaemic condition of the blood which may be one of the factors in the causation of ascites.

The operation may be successfully carried out by the use of a local anesthetic.

If this operation was adopted and employed earlier in this class of cases and not looked upon as a last resort to be used only in the later stages of this disease the percentage of complete recoveries would be greatly increased.

This operation, both in its technique and principle, is closely allied to the Edebohls operation on the kidney for Bright's disease. Both cirrhosis and Bright's disease are as yet practically hopeless from the standpoint of a complete cure, especially in the hands of a physician. Why then is it not rational to give the patient the benefit of a trial when he has everything to gain and nothing to lose?

TOBACCO.

Tobacco used in moderation is one of the least hurtful of luxuries, the effects of the weed being transitory and functional in

character and due to the imbibed poisons (carbonic acid, ammonia, nicotine, &c.,) which are, however, readily eliminated. When smoked leisurely after meals and after the day's work is over, it soothes and conduces to clear, quiet thinking. Hurried smoking, smoking during work hours, and excessive smoking are harmful and in different degree to different individuals. Three cigars of ordinary size daily are not demonstrably injurious to the average adult in good health. Those of erethic temperament are more easily affected by tobacco than the phlegmatic, and the sedentary brain worker cannot with impunity smoke as much as he who leads an active outdoor life. While the disturbances produced by tobacco are chiefly functional, yet undue repetition will induce structural lesions in the blood, the stomach, the heart, the organs of special sense, the nerves, and the buccal and bronchial mucous membranes.

It is especially injurious to the young, arresting oxidation at those periods of life when that process is most active and most needed, and when the structures of the body are attaining their full development; thereby causing impairment of growth, premature manhood and physical degradation. The poisons are absorbed by a clean, clay pipe, which is consequently much safer than a short, dirty pipe, or a fine cigar. Sore throat is prevented by the use of a long-stemmed pipe, which renders the smoke cooler by the time it reaches the throat. Smoking half of a long cigar is next best, being much safer than smoking a short pipe or a cigarette, which in this respect is most injurious of all. The habit of inhaling the smoke, of swallowing it, or of passing it out through the nose may lead to disease of the irritated parts. In habitual smokers, at the inside of the corners of the mouth and lips and in some other localities, there may appear opalescinces known as the milky patches of smokers, and sometimes mistaken for syphilitic mucous patches. They usually subside with abandonment of the practice. A lore proportion of the cases of epithelioma of the tongue apparently occurs in those who smoke short-stem pipes.

TULASE, THE NEW REMEDY FOR TUBERCULOSIS.

The professional world is awaiting with considerable interest, and with perhaps not a little skepticism, the outcome of Behring's work in which he claims to have found a cure for tuberculosis. Except in a general way he has made known very little concerning his work or the nature of the discovery, but his carefully worded though ambiguous statements make it certain that his method is based upon the propositions of Metchnikoff and Klebs, and not upon any original conception of his own. Nevertheless coming from a man like Behring, whose scientific work hitherto accomplished stamps him as an authority and a bold investigator, even the possibility of so great a blessing arouses in the heart of mankind a hope that the remedy may prove a real one. In a recent article Dr. H. A. Hare, in making a classification of sera employed for therapeutic purposes, places this serum for tuberculosis under the head of "sera whose value has not been definitely proved," yet this authority believes that good results may be forthcoming. The remedy, to which the name "Tulase" has been given, consists of a toxin derived from the tubercle bacillus. For years Dr. Behring has been carrying on experiments on cattle, vaccinating the animals with live cultures of human tubercle bacilli and claiming thereby to protect them from the disease. Manifestly he could not employ this method on human beings. It seems, therefore, that he adopted another method—attempting to break up the dead germs into a non-essential or injurious portion and an essential or immunizing portion. Just how this is accomplished is still shrouded in the mystery which the doctor chooses to throw around the matter. By some the non-essential is said to be separated from the essential element by treating the bacilli, first with water, then with salt solution, and lastly with alcohol and ether. The portion remaining after these extractions is injected into men or animals, and it is claimed that by the union of certain bodies contained therein with the cells of the animal body immunity is thus conferred. According to another writer "Tulase is a clear liquid substance prepared by treating tubercle bacilli with chloral." It seems that Dr. Behring will not allow private practitioners to employ the remedy until his methods of treatment and dosage can be more accurately determined. Large hospitals may, however, obtain the remedy provided the physician in charge shall receive a special course of training and instruction in Von Behring's laboratories at Marburg.

MEDICAL JOURNALISM.

Appearing in one of the best known independent medical publications, a recent article dealing with the problem of medical journalism enters a strong protest against the pernicious movement instituted, or at least threatened, by the great organizations of the profession to crush independent journals. Not only has this thing been hinted at, but loud boasts have been expressed in the pages of these *trust* organs that they will kill every independent medi-

cal journal, not in so many words, perhaps, but the scheme is perfectly transparent.

The writer divides present day medical publications of this country into three classes: First. Independent journals, which long years before this foster child, the trust, was conceived, sought out and gave to the profession all that was newest and best in medical science. Second. Journals published under the protecting favoritism of medical organizations which with sharp ingratitude have decided that the nurses under whose care they prospered and grew are now of no further use and deserve only to be devoured. Under this head are mentioned national and State Medical Society Journals. Third. Journals published by manufacturing houses which in the very nature of things could scarcely be looked upon as anything but biased advertising media only to be discouraged by the profession because medical science is not correctly represented in their pages.

To the fair and unprejudiced mind there can be no element of right or justice in the proposal mentioned above. To do his best work an individual must be unfettered; he must have no policy officially dictated or inspired by commercial interest; he must be actuated only by his own regard for what is highest and noblest; responsible only to his own conscience and to the best interests of his fellows. The independent medical press for many years was the only medium for intercommunication between members of the profession. Through these journals the masters of medicine have spoken their teachings to thousands. They have exercised a restraining influence when dangerous enthusiasm threatened to lead men astray. On the other hand they have fostered and given impetus to medical science and to higher medical education. They have endeavored to lead the profession to the spirit of brotherhood, co-operation and organization, and away from dissension, competition and strife, have fought the narrow spirit of commercialism, and it has been largely through their influence that the town, county, State and national Medical Societies are what they are today. The work done by and through the pages of independent journals in behalf of these organizations is simply beyond estimate. Yet in the face of all this the foster child turns upon and by sheer might of moneyed power threatens through the columns of its journal the very existence of its former nurses.

There can be no truly unbiased policy in a publication whose editor possesses no personal independence. His office depends wholly upon his ability to please the faction in power and it too often happens that it is looked upon as political pie dished out to the favorite of the ruling party. Once established his continuance is the result of fawning subserviance to the dictates of "the ring." Can any real good be accomplished by a press so hampered? We believe not. The whole thing is wrong and unjust. The idea to crush the independent journal is nothing more than the time-worn unthinkable "might makes right."

The idea is to have one journal published by the national association and for each State Society, one journal thus making all subservient to the control of the ring. Although not openly declared it at least isn't denied that an effort is making gradually to bring the State and National Societies into the same relationship now occupied by the State and county Societies, thus giving the member entrance into all three when he joins his county organization. To become a member he must pay his dues annually or otherwise, and in these dues are included the subscription price of two medical publications, State and National. Manifestly this is unfair. If association journals were required to stand upon their own merits, having a definite and distinct subscription price independent of association dues so that members might subscribe or not as they choose, much of the element of unfairness would be eliminated from the competition. But to have medical journalism throttled by a trust, in whose soulless existence no thought is taken of the individual, places medical organization on a par with the corporations of commercial life and crushes out the very thing which is highest and grandest in medical science: honest endeavor to find the truth and speak it untrammelled.

THE CASE OF DR. MATTHEWS.

Readers of this journal will recall the famous case of Dr. J. B. Matthews, of Greensboro, N. C., who was indicted, tried and sentenced to 20 years imprisonment for wife murder, the decree having been affirmed by the Supreme Court within the past few days, and still more recently the last sad chapter has been read in the newspapers —the story of the suicide of Matthews in a cheap Baltimore lodging house. Interest in the case was widespread, eminent specialists were present to testify as to the sanity of the defendant, the highest legal talent of the State battled for and against him. It is history now and we revert to it only because there has come to our table within the past week a most interesting paper by Dr. T. D. Crothers, of Hartford, Conn., who, as an alienist and neurologist and as a totally impartial and unbiased expert, gave it as his opinion that the prisoner was, as a result of morphinism, insane and at the time when

the crime was committed was wholly incompetent to reason and act normally. The writer believes, and perhaps justly, that it is an error to attempt "to administer justice and maintain the majesty of the law in the punishment of imbeciles" and that it is absurd to present to an ordinary jury the evidence of sanity and responsibility in such cases. He holds that the only wise thing to have done was to have settled definitely the question of sanity by submitting it to a commission of specialists. Insanity being admitted there could be no question of motive or responsibility. But to leave the decision of such a case in the hands of 12 men who knew absolutely nothing about the medico-legal and scientific side of the case was sheer foolishness.

We quote herewith the main facts presented in Dr. Crothers paper.

1. The hereditary history in Matthews' case showed a distinct neurotic heritage and predisposition to mental instability, with feeble controlling power. In the ordinary strains and drains of life he was incompetent to live normally, but would most naturally develop some form of neurotic disease, according to the environment and conditions of life.

2. His defective heredity was apparent in the sensitive nervous system of early childhood and erotic conduct, manifest in a suicidal mania at the beginning of manhood. This, with the history of spirit and drug taking, was the natural course of defective organism with faulty culture in bad surroundings, which would follow with absolute certainty from such conditions.

3. The fact of graduating with honors and becoming a popular physician, making and losing many friends by his erotic conduct and increasing eccentricity, was further evidence of a neuropathic condition and an unstable, unsound brain.

4. The year before the alleged crime he was notorious for his periods of stupor, depression and talkative delusional deliriums. He became careless in his dress and disregarded many of the proprieties of life, indicating great physical and mental changes. His untruthfulness, respect for his word, pride of character and petty efforts to take advantage further confirmed the fact of his defective reason and irresponsibility.

5. His relations with his wife gave no indication of any variance or disagreement, and at times in public they exhibited great respect and affection for each other. He was not considered by his friends combative or revengeful, but rather the opposite, hence there could be no motive apparent to dispose of his wife.

6. The comatose condition of his wife on the morning of her death could not be called an unusual event, where both were using morphia. His statement that she tried to commit suicide by taking a large dose of strychnine and that he had given as an antidote continuous doses of morphine every half hour, was a very natural order of events, particularly as he was using it himself. His indifference to the efforts of the physicians in restoring her and the apparent impulse to administer more morphia secretly to make the case fatal, was the act of an imbecile brain and a morbid impulse of a lunatic, without consciousness of the consequence and results of his act.

7. The further history of the prisoner in jail and during the trial, in which he manifested a degree of nervousness bordering on delirium, unless he was given morphia in sufficient quantities to make him comfortable. His general demented condition, erotic talk and stupor alternating with apparent sanity, but always followed by general unconsciousness concerning himself and surroundings.

From these facts there are certain general conclusions, which should have been recognized and acted upon without any possible question or doubt.

First. It was an error of the authorities in assuming that death was caused by strychnine, and not verifying it by post-mortem examination and chemical analysis of the contents of the syringe.

Second. It was a still more serious error in assuming that Matthews was sane and responsible for his acts, especially in that community, where his mental condition was a subject of common observation and talk and his drug taking was acknowledged beyond all question.

Third. The apparent motive in injecting into his wife's arm some substance to increase the fatality of her condition would naturally demand his arrest and confinement, but the assumption that this was a sane act of a responsible man was a reflection on the intelligence and judgment of the authorities.

Fourth. Matthews should have been tried by a commission of lunacy, and the questions of his mental condition determined before any further steps had been taken, then if sanity, malice and responsibility had been apparent, his trial would have been reasonable and in accord with the dictates of justice.

Fifth. Such a commission would have determined from the facts of his history, his present condition and appearance, the probable impulses, delirium or delusion which prevailed at the time of the alleged crime, and what his appearance of sanity was, as seen by the physicians before the death of his wife.

THE SOUTHERN MEDICAL ASSOCIATION.

We extend to the newly organized Southern Medical Association the most hearty congratulations and well wishings. This latest addition to the medical family should have a bright future if it accomplishes the end toward which its aim is directed. And there is every reason why it should. On Oct. 2nd-4th at Chattanooga, Tenn., as a result of a conference of delegates from the State Medical Societies of Georgia, Alabama, Tennessee, Louisiana, Mississippi and Florida, this association was formed, Constitution and By-Laws adopted. It is believed that the conditions are such as to warrant the usefulness of such an organization and that greater opportunities will be given to members of the profession to participate in meetings and to mingle with others than can possibly be found in the great National Society meetings. Between the various State Societies and the National Association should stand the sectional organization. By constitutional provision all politics and legislation are eliminated and the effort will be to make the mission of the Southern Medical Association purely one of scientific advancement and fellowship of those already more or less bound together by sectional conditions and community of interest.

The enormous membership of the National Association with its great annual attendance, places restrictions upon the immense majority of those active and progressive members of the profession who would "with justifiable ambition mingle in thought and theory with earth's mightiest." It is a fact that physical conditions make it impossible that these shall often have an opportunity to attend the national meetings and they can but feel their limitations. The plan is replete with possibilities and the aspirations of its promoters entirely praiseworthy, the first president of the new Association is a man of eminence and ability, one whom the Journal delights to honor and our emendations would be equally favorable when we speak of the efficient Secretary.

However, it is not made quite clear to our mind what the writer means by "the South." Is there a new South which does not include some part of the old South? Is there any reason why a *few* Southern States should comprise a Southern Medical Association? In the constitution of the newly formed association, Article II, Sec. 2, we read: This alliance shall not be construed as an effort to exclude the States of Kentucky and South Carolina, whose proximity to us places them logically within this district. Shall other *Southern* States consider it "an effort to exclude" them? If there is to be a Southern Medical Association to represent the profession of the South, have a half dozen States the right to abrogate unto themselves the title which belongs to the whole?

RECIPROCITY AND STATES RIGHTS.

Recently a great deal has been said and written on the problem of reciprocity in medical licensure. Dr. Wm. J. Mayo in his presidential address before the American Medical Association in Boston introduced the subject and urged that some agreement be reached between examining boards of different States that would enable a legal practitioner of one State to gain recognition in every other State. As matters now stand it so happens that a physician in one State although he may have practiced his profession for half a century with honor and distinction—it may be that his reputation has spread abroad to all lands, yet outside the State in which he dwells he is legally but an ordinary layman, with no right to practice medicine, and if he attempts to do so he is liable to punishment as a law breaker.

Dr. Mayo believes this should not be so, and makes the assertion that "the boundaries between the States are imaginary lines." Manifestly this view of the matter is untenable. We quote the Medical Record whose editorial in this matter we most heartily endorse: "If the State boundaries are imaginary lines so far as medical laws go, then they are equally intangible as regards other laws, and State legislatures and State courts become at once needless and expensive luxuries."

We do not wish to have it appear that we are opposed to reciprocity, yet we do believe that State lines are very real and that the doctrine of States' Rights plays a most important part in the question. We believe in and would advocate a reciprocity which would not be incompatible with the laws of individual States. When the educational qualifications, standard of examination, &c., shall have become the same in every State reciprocity will become possible. In the present condition of things it is manifestly impossible. Some States place their requirements very high; others are so low as to amount practically to none at all. To any fair minded person it would be impracticable to establish reciprocal relations when such differences exist. Already there are many States among whom reciprocity is practiced; while, on the other hand, there are some,—our own State among them—that decline to accept the examination and credentials of any other State. If the law of the commonwealth states that a physician shall be licensed only after he has passed a pre-

scribed examination it is at once evident that there will be worked a hardship in certain individual cases. Take the case of a physician—an old practitioner, perhaps, who has spent years in honorable, useful practice—but who received his license before an examination was required in his State. Suppose now he wishes to come to North Carolina to engage in practice, at once it is plain how difficult it would be for such a man to comply with the requirements. A man who has been in practice a number of years has naturally grown somewhat "rusty"—has forgotten much of the elementary branches, yet he should have forgotten by no means all. State Board examinations are not so terribly difficult, and any old practitioner who after a little reviewing should fail to make the required average must certainly belong to that class—unfortunately large—whose libraries consist of the books owned when they graduated, who take no journals, never attend a Medical Society meeting, never take a postgraduate course and imagined when they left school that they were equipped for life. The men who give these examinations are not specialists or teachers. On the contrary they are usually general practitioners—men who have been in practice many years. The questions are so elementary that any doctor who has some foundation on which to base his study should be able with a few weeks "cramming" to prepare for any of them.

Experience alone does not qualify any one as a practitioner. The physician who has no knowledge of chemistry can really know nothing of drugs—knowing nothing of pathology can never become a good diagnostician. In this country there are practitioners who have delivered as many women as Edgar, Davis or Hirst, and yet who know nothing of the practice of asepsis and whose very touch is a menace to the life of the parturient woman.

Nevertheless, in the face of all this the old man deserves some consideration, and the provision which some States are making for him to whom the beckoning call of other scenes comes is only wise and fair. Missouri and Illinois by allowing a credit of 5 per cent. on the required percentage for each 5 years the old man has been in practice give him a fair and equitable standing. Such a measure is not for long; soon the older generation of physicians shall have passed away, and it is only just that the law be mitigated to some extent in the case of those for whom the hardship comes. This arrangement makes universal reciprocity as nearly a realization as we believe the profession can ever dare to hope for. It is a question for each individual State to settle.

Review of Southern Medical Literature

Texas Medical Journal, October, 1906.

The Value of the Reflex Arc in Diagnosis.—Dr. M. R. Hughes says that in the different cord lesions the neurologist has to deal with it is obvious that the value of a thorough conception as to the value and understanding of the reflex arcs and the light that they shed upon an obscure condition is imperative. There are times of course in which there is a minus reflex action of some of the parts without a gross pathological lesion; and again there might be an exaggerated condition, however that condition which is capable of producing both an exaggerated and a diminished reflex is comparatively rare; that is the profoundness of the disease—hysteria. It in itself is common enough, though its resultant a minus or highly plus reflex is rare. Especially is that true of an absent reflex.

When the reflex is diminished and not entirely lost, as seen in profound cases of hysteria, there is that character to it that enables us to distinguish between a diminution of reflex action hysterical conditions and a diminution from breaking down of tissue or some gross structural change in the cord.

It is by no means a hard and fast rule that all absence of reflex movements below certain planes means a disintegration of tissue within the cord, or even an exudate that might produce a diminished or even an absent reflex action.

The Southern Clinic, October, 1906.

Empiricism.—Dr. J. R. Landers believes that empiricism is never practiced when a scientific, well-understood method is better and successful. The old empiricism depended upon the narrowest experience to the exclusion of everything else "even anatomy," neglecting all aid of science, fact or theory. While empiric today is hoping and fully expecting that tomorrow will reveal the rationale of the practice by accepting and using any and all collateral and connected knowledge that may project high on the subject or aid in any manner toward betterment, keeping in view the condition, constitution, physiology, anatomy, direct and indirect effects, and immediate and remote results. Then may it not be appropriately termed philosophic empiricism, desirable rational empiricism? Has not such empiricism given us some of our most reliable effective expedients, or most of them? Except by trial we could know little of the action of drugs certainly, and if it developed that a drug tried will save life under circumstances that we know

of no other remedy that can it is certainly justifiable practice to use the one that will save life.

Quinine is considered the scientific rational remedy in malaria, but it did good service before its scientific status was established. Mercury in syphilis was effective before it was scientific treatment or before the rational explanation of its action was possible. However, with the empiricism of the second century no effort to determine this fact would have been made. And this is the point—every effort is being made to determine the why and wherefore of effects and results.

The American Practitioner and News, October, 1906.

Croupous Pneumonia.—Dr. A. M. Barnett believes that the treatment must be regarded as one of expectancy, with active treatment of symptoms as they arrive. Everything must be done to maintain the patients strength, and no medication should be resorted to that tends in the slightest way to embarrass the action of the heart, such as aconite, veratrum viride, and coal tar antipyretics. Only in those cases of so-called sthenic type in the young, robust adult, attended with great activity of the circulation and full-tense pulse cyanosis and embarrassment to respiration and late in the course of pneumonia when the right side of the heart appears to be greatly embarrassed, dyspnoea and cyanosis marked with evidences of pulmonary oedema should blood letting be resorted to.

Great benefit will be found from the use of the various hydrotherapeutic measures at our command; to maintain the heart's action is one of the most important indications in pneumonia; alcohol is of special value in those persons who have an alcoholic history; strychnine given subcutaneously when it is necessary to tide the patient over a critical period; nitroglycerine in 1-100 grain doses every two or three hours; amylintrate in 15 drop doses by inhalation so that 50 drops are given during the course of five hours; aromatic spirits of ammonia; carbonate of ammonia; atropine hypodermically will be of service in stimulating a flagging heart; pain may be relieved by morphine or Dover's powders. In severe cases some relief may be obtained by the free administration of oxygen.

The intravenous injection of saline solution has given some good results, and the best time is a day before the expected crisis. Should sudden collapse occur a hypodermic of strychnine and atropine should be given and introduce under the skin by hypodermoclysis a pint of normal saline solution containing one drachm of a 1 to 1000 solution of adrenalin chloride.

Virginia Medical Semi Monthly, Oct. 12, 1906.

Mouth Breathing, its Causes, Effects and Correction.—Dr. C. M. Sandusky says that mouth breathing if long continued produces serious effects on the general health. Children so addicted should be corrected early. If such attention is not given promptly it may result in an entire change in the contour and expression of the face. The continued abnormal respiration shortens and broadens the nose by the drawing down of the muscles of the face. The bones of the face being soft and easily moulded the same pressure draws in the upper jaw and instead of the palate being a smooth round dome there is formed a high irregular arch.

Where the floor of the nose is thin from imperfect breathing in early childhood the terminal nerve filaments going to the roots of the teeth run a superficial course. Should an inflammatory process be set up for instance from a septal spur or any cause it may result in devitalization of the teeth and abscesses. Frontal headache and facial neuralgias are often met with.

Among the many deleterious results from imperfect breathing the changes in the blood is a prominent one. There is also an intimate relationship with nasal obstructions and diseases of the eye and its appendages. Interference with the outlet of the nasal duct results in a reversal of the flow and the introduction of septic material within the conjunctival sac. Thus the nose may be a large etiological factor in epiphora, trachoma, conjunctivitis and corneal ulcers, and dacro-cystitis.

The feted odor of the breath is due to altered chemical action and decomposition of the saliva. Such altered chemistry of the saliva may form compounds which when swallowed form no small part in detracting from the general welfare of the body.

The causes of mouth breathing are: Collapse of nasal alae and narrowing of the nostril; occupation; various neoplasms of the nose as polypi, fibroma, etc.; adenoids; enlarged faucial tonsils; acute rhinitis and the several manifestations of the chronic form of the disease.

The Texas Medical News, Oct. 1906.

Chronic Tobacco Poisoning.—Dr. E.H. Eastman points out that the injurious effects of tobacco are caused from its alkaloid nicotine which received its name from Nicot, who first introduced the plant in France. The chemical formula of nicotine

is C_{10} H_{14} N_2. It is described as a thin, oily, colorless liquid, highly poisonous, having an acrid taste. It has a disagreeable odor and is said to poison as quickly as HCN. Tobacco leafs contain 2 to 8 per cent. nicotine per thousand parts. It will be readily noticed that the general picture of a case of chronic tobacco poisoning is closely allied to hysteria and neurasthenia. The centers of action seem to be upon the medulla oblongata and pneumogastric nerve. Being an irritant to mucous membranes and possessing specific emetic properties combined with its action on the vagi it may readily be seen that the digestive system is an early point of attack. After a period of tobacco using varying in time from a number of months to many years the patient finds himself in a state of mental and physical decline.

He tires easily; his mind will not grasp ideas and retain them readily; his sleep becomes disturbed; constipation becomes chronic; his nervous system is unbalanced and finally there is a complete breakdown in which the patient gradually becomes unfit for business or society. There is discouragement and an unsettled feeling which causes the patient to move from place to place. Lack of self confidence is a prominent symptom. Here we have a nervous, pale-faced individual, whose decline has been insidious and whose condition is very much akin to that of neurasthenia, although the stage of depression is more of a transitory nature and not so profound or liable to be accompanied with the usual profound exhaustion.

In a great many cases the disposal of the morning meal is a source of great discomfort. The stomach after a night's rest refuses to be aroused, and comes to its proper functioning so slowly that the day has worn on towards noon before food can be tolerated.

Nashville Journal of Medicine and Surgery, October, 1906.

Cephalhematoma Intracranial.—By Dr. E. S. M'Kee.

The Medical Recorder, October, 1906.

A Few Suggestions on Prevention of Fever of Malarial Origin.—Dr. C. E. Edgerton says if the following rules are strictly carried out it will be sufficient to prevent mosquitoes breeding near enough to dwellings to do harm.

1. Allow no standing water within 200 yards of dwelling. This can be done by ditching, and filling in the low places where ditching is impossible.

2. Keep all tubs, wash pots and other vessels emptied when not in use.

3. Go over your premises often and see that no bottles, cups, saucers, cans, or any other article of this kind are turned up so as to catch and hold water, for only a few drops are sufficient to raise numbers of mosquitoes.

4. Troughs and other vessels used for watering stock and poultry should be emptied and washed out every three or four days.

5. Allow no high grass, weeds or vines to grow right near your dwelling. While these are not breeding places for mosquitoes they are excellent harboring places for those that might straggle away from home as did the prodigal son, and the dew on this vegetation might keep them alive.

6. Carefully examine all shade trees and stumps near dwelling to see if any are hollow and hold water. If so, and the water cannot be let out, pour coal oil in the water at least once a week. All shade trees should be trimmed high so that the sun can shine on the ground.

7. Water closets should be frequently cleaned and oiled.

8. Either screen your well and cistern thoroughly, so that no mosquitoes can pass, or put one teaspoonful of coal oil into each once a week. This will not hurt the water for drinking purposes.

9. Do not have cow lot near residence.

10. For fear that you may have a strong wind to blow a few mosquitoes to your house provide every bed with a large mosquito bar with meshes so fine that a mosquito cannot pass through, or else have your house thoroughly screened.

The Southern Practitioner, October, 1906.

How Shall we Limit the Spread of Tuberculosis?—Dr. W. T. Marrs points out that the State Boards of Health are "viewing with alarm" the wide spread and ever increasing ravages of consumption. The death rate until put by the side of other fatal diseases is almost beyond our comprehension. Clinicians and scientists are very conversant with the disease so far as the etiology, pathology, etc., are concerned, but when called upon to combat it in actual practice they can offer no line of treatment that promises any great modicum of success. In fact, the most unpretentious country doctor by reason of favorable environment handles these cases better than the most astute man of the city. Our increasing knowledge of tuberculosis all proves that the disease must be offset by improved nutrition. A preverted metabolism is always the first causitive factor. Cell nutrition gets below par and invites bacillary actin. It is a fact well recognized that a

suitable soil is the first step in tubercular infection.

If nutrition can be kept at or above par "His Majesty," the omnipresent tubercle bacillus, is kept at bay. The pretubercular period is where we can get in our most effective work. Physicians should become skilled in recognizing consumption in its incipiency. There are many premonitary signs by which we can diagnose a condition that is amenable to treatment, but which if neglected will prove disastrous.

Gaillard's Southern Medicine, Oct. 1906.

The Lingual Tousil.—Dr. J. P. Davidson believes that the treatment of cough arising from this region is exceedingly satisfactory and may be divided into (1) sedative cough mixtures which only temporarily inhibit reflexes, (2) astringent and cauterizing applications, (3) actual cautery, (4) excision of hypertrophied tissue with the lingual tonsillitone.

The majority of the cases are quickly and satisfactorily relieved by the application of some of the astringents or cauterizing agents. Probably the safest of the astringents to be used by one who is not particularly expert in making application to this region is Argyrol. This agent can be used in more than 50 per cent. solution, and an accidental application of it to the larynx does not cause spasm. Cauterizing the high points can be done with nitric or hydrochloric acid, carbolic acid or chloride of zinc, and daily applications of these agents can be made until the entire area is covered.

When the lingual tonsil is very much enlarged and either acutely or chronically inflamed the thermo-cautery has proven by far the most effective remedy with the author. The high point can easily be cauterized when brought in full view by the pharyngeal mirror and with the patient holding out his tongue. If a follicle is thoroughly cocainized it produces but comparatively little pain, though it does cause considerable reaction. Remaining prominences can usually be touched on the first or second day after the first application. The author has several times seen secondary hemorrhage follow the use of the cautery, but not to any alarming extent. He has had but little experience with the lingual tonsillotone and confesses that he is afraid to use it, owing to the very large verious channels which are readily seen in many cases at the base of the tongue.

The Mobile Medical and Surgical Journal, September, 1906.

Tetanus Tresmus or Lock-Jaw.—Dr. T. D. Dean says at present possibly the most important therapeutic question in the treatment of this disease is the value of tetanus antitoxin. It has been observed that certain lower animals, such as the dog, are very slightly susceptible to tetanus and can be rendered immune from the disease by the injection into their tissues of the tetanus virus in gradually increasing doses. It has been also noticed that the serum of animals so treated has the power of conferring immunity upon more susceptible animals. The serum of such animals may be preserved for use by the addition of a small portion of carbolic acid. Dr. Metzer has reported a case at the Roosevelt Hospital in which he attributes the cure to the use of an injection into the spinal column of a 25 per cent. solution of magnesium sulphate in the proportion of 1 cc. for every twenty-five pounds of body weight. This is done for the controlling of muscular spasms on the theory that the violent muscular exertions during convulsions tend to gradually wear out the patients strength and undermine the reserve force of the body. This theory seems to be based on the idea that a cure of the convulsions will be followed by a cure of the patient, and generally speaking this idea will hold good, but that it does not hold good in every case is shown by Dr. S. Logan, of New Orleans, in an exhaustive report of a case where the treatment was used in which the convulsions were completely controlled, but with no apparent effect on checking the course of the disease. The bad termination of this case is explainable from the fact of the extremeness of the case and that the other remedies were not sufficient to effect the toxines of the disease. From the reports that have been made the author would recommend that this remedy be used where there is any difficulty in controlling the convulsions, whatever amount of strength of the patient we can conserve will add that much to a favorable termination.

Maryland Medical Journal, Oct. 1906.

Hydatid Cysts, with Report of a Case.—Dr. R. E. Garrett says as to the history and development of the worm in the human being the course is about as follows: The larval worm after gaining access to the human stomach is hatched out by the "egg-shell" or covering being dissolved by the action of the gastric juice, thus setting free the embryo worm which acquiring a hold by means of its hooklets upon the mucous membrane of the stomach or more usually the duodenum burrows through the different layers of the intestine and finds its way into one of the branches of the portal system, through which it is carried and is lodged in some viscera suitable for its fur-

ther nourishment and growth. Once finding a lodging place (usually in the liver or in the lungs) a small vesicle is seen to develop from the caudal extremity of the scolex which gradually extends until it invaginates and finally completely envelopes the embryo tenia which then floats free in the fluid entirely surrounded by membrane. This is the miniature hydatid cyst and may grow to a considerable size. From the innermost layer of the original investment small offshoots project and finally form daughter cysts and brood capsules, which as they mature collect within, leaving the wall and floating in the endocystic fluid until the parent cyst contains myriads of minute cysts, each representing a larval tenia. Besides these daughter cysts which accumulate within there are others which project in just the opposite direction, penetrate the wall and pass outwards, and it is owing to this circumstance that some of the cysts are unilocular and others multilocular (Blanchard). The unilocular variety predominates and usually contains a perfectly clear fluid. In the fluid of these cysts and from the scrapings of the cyst walls the characteristic hooklets alone or the hooklets and scolices of the parasite are found. The multilocular variety was at one time considered cancerous because when many cysts were found the occurrence suggested metastasis. It was not until Virchow demonstrated the existence of hooklets that their real nature was determined.

New Orleans Medical and Surgical Journal, October, 1906.

Report of two Cases of Gonorrhoeal Arthritis treated by Bier Hyperemia.—Dr. C. W. Allen's first case was one of the knee joint. Case II.—H. L., aet. 23. Gonorrhoea for three weeks when his left wrist and second and third metocaepophalangeal joints began to swell and become painful. Author saw him several weeks after; had his arm in a splint and had been using large doses of salicylates with negative results. The wrist and hand were swollen and painful; almost helpless. A rubber bandage was applied midway between the wrist and elbow. After using the bandage about ten days this condition cleared up. Although both cases were mild and cleared up in a short time it is, however, not uncommon to see cases no worse than these drag on for many weeks under other methods of treatment, becoming very discouraging to the physician as well as to the patient, sometimes at least, the more serious cases ending in a permanently stiff joint.

The Bier treatment by any of the three methods, while having a few fundamental rules to follow, is after all very simple and applicable to a multitude of afflictions. Of the three methods that by constriction such as used in these cases is the most generally useful and no physician or surgeon should neglect an opportunity to learn its application and perfect himself in its technic.

There are two other uses that the rubber bandage has proved satisfactory. In cases where pressure is desired the rubber bandage meets this condition admirably. In inguinal adenitis applied as a spica to the groin more pressure can be more comfortably borne and more applied than by any other method. The same in hydropo-articuli. In orchitis or epididymitis a rubber bandage is more easily applied and far more effective than strapping with adhesive plaster. No shaving is necessary; there is no sticking to the skin; the pressure is always uniform and adapts itself to the parts as they diminish in size. When applied in these cases a small piece of sticking plaster placed across the end of the bandage prevents slipping.

Southern Medicine and Surgery, October, 1906.

Southern Medical Association.—Conference of delegates appointed by presidents of Medical Societies of six Southern States results in organization of Southern district branch of American Medical Association.

The Atlanta Journal Record of Medicine, October, 1906.

Prognosis in Pulmonary Tuberculosis.—Dr. Mary Lapham says that the prognosis of any case of tuberculosis depends almost entirely upon the power of the individual attacked to manufacture certain protective substances which are capable of rendering the tubercle bacilli susceptible of being absorbed by the leucocytes.

The opsonic index is the estimate of this capacity on the part of the leucocytes to absorb the tubercle bacilli. If it is high the case is favorable. If tuberculin lowers the index it is unfavorable. The use of tuberculin should always be controlled by its effect upon the opsonic index, otherwise we are in danger of doing more harm than good. Since the difficulty of making this estimate prohibits its use by the ordinary practitioner the local or State board of health should do it for us, just as though it were a case of diphtheria or typhoid. The number of nuclei express the stage of development and the phagocytic capacity of the neutrophilis. The more complicated the structure the greater the functional capacity. In the fight against the tubercle bacilli these higher forms are the active

agents of destruction and therefore suffer far more reduction in numbers than the simpler forms. In severe cases the complex classes entirely disappear, while the percentage of mononuclears are correspondingly increased, together with the lymphocytes. The blood picture of tuberculosis is that of lymphocytosis, together with an increase in the lower classes of the neutrophiles and disappearance of the higher. The shifting of the percentages from right to left, from higher to lower, is strikingly characteristic. Therefore, just as these higher classes are represented will we form a prognosis. It is the most gratifying sign of the genuineness of an apparent recovery when these higher classes are again represented and the percentages approach the normal until finally the eocmophiles which are usually totally absent again reappear.

Memphis Medical Monthly, Oct., 1906.

Puerperal Eclampsia.—Dr. W. L. Medling says every case requires individual care and the maxim, "A physician should be a constant watchman and a therapeutist when necessity requires" is very applicable. In caring for a pregnant woman it is well to bear in mind that the watery elements of the blood are increased, also the white corpuscles with a diminution of the red cells. The amount and character of the urine should be looked after, but the presence or absence of albumin in the urine does not play such an important part, as it may be present without eclampsia or absent with it. Where no pathological condition exists it is reported to be found in 4 per cent. of pregnant women and one-third of the women in labor. If there are any suspicious symptoms a urinalysis should be made and its findings associated with other symptoms, always being careful in the specimen of urine used to avoid a mixture with vaginal and uterine secretions. The author quotes Hare's four rules in treating eclampsia, which are as follows:

1. The cell activity of mother and fetus produces excrementitious substances which are poisonous to the whole organism unless voided or made harmless by the excretory organs.

2. The organs in a child-bearing woman are often inadequate to the disposal of the effete material from fetal and maternal bodies.

3. Consequently poisons of a nature not yet demonstrated are stored up in the maternal blood until by culminative action their presence is manifested in the eclamptic seizures and other symptoms.

4. The convulsions are probably the result of acute cerebral anemia brought about by violent contraction of the arterioles possibly by direct irritation of brain substance. As a result of intense muscular action the circulation is interferred with and blood is determined into non-muscular regions, as the brain, lungs, kidneys, etc., to such a degree that the congestion becomes dangerous, leading to apoplexy, edema of the lungs, and often complete abrogation of renal functions. When seen during an attack the first thought should be to save the child and protect the mother from injury. If coming some time before full term our first thought should possibly be to overcome the trouble without premature labor, yet the individual case should determine the course.

Texas Courier-Record of Medicine, Oct. 1906.

Some Doctors' Mistakes that are not Buried.—By Dr. C. R. Lesnett, Fairlie, Texas.

Book Notices.

STUDIES IN THE PSYCHOLOGY OF SEX—EROTIC SYMBOLISM, THE MECHANISM OF DETUMESCENCE, THE PSYCHIC STATE OF PREGNANCY. By Havelock Ellis. 6⅜ x 8⅝ inches. Pages x-285. Extra Cloth, $2 net. Sold only by Subscription to Physicians, Lawyers, and Scientists. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

A TREATISE ON THE MOTOR APPARATUS OF THE EYES. Embracing an Exposition of the Anomalies of the Ocular Adjustments and Their Treatment, with the Anatomy and Physiology of the Muscles and Their Accessories. By George T. Stevens, M. D., Ph.D. Illustrated with 184 Engravings, some in colors. 496 Pages, Royal Octavo. Bound in Extra Cloth, Bevelled Edges, $4.50 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

This work presents, in a systematic form, the principles governing the physiological actions and anomalous disturbances of the motor apparatus of the eyes, and whatever progress may be made in the future will not, it may confidently be asserted, supplant the general principles the author has so clearly, ably, and fully elucidated, but will undoubtedly serve to explain many questions thus far unanswerable.

In view of the fact that difficulties of adjustments of the eyes are a source of nervous trouble, and, more frequently than other conditions, constitute a neuropathic tendency, a knowledge of the principles of

the adjustments of the eyes and their anomalies becomes of the greatest importance. This work supplies that knowledge in convenient and usable form for the general practitioner, neurologist, and oculist.

The reputation of the author as one of the most original thinkers and foremost investigators in his profession, and one whose works have exerted a profound influence on the views, not only of oculists, but of practitioners in other branches of medicine, is well known.

THE EAR AND ITS DISEASES. A Text-Book for Students and Physicians. By Seth Scott Bishop, B. S., M. D., LL. D., Honorary President of the Faculty and Professor in the Post-Graduate School and Hospital of Chicago; Surgeon to the Post-Graduate Hospital and to the Illinois Hospital, etc. Illustrated with 27 Colored Lithographs and 200 Additional Illustrations. Royal Octavo, 440 Pages. Bound in Extra Cloth. Price, $4.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

The anatomy of the ear has heretofore been a field both dreaded and unconquered by the average student. It has been the endeavor of the author in the present treatise to present the subject in as simple a manner as is possible. The work is based on the experience resulting from a practice of twenty-five years, and the larger number of illustrations are drawn from the writer's clinical and private practice.

This book is an acceptable addition to the literature of special ear work and it is valuable volume for reference and study.

A PRIMER OF PSYCHOLOGY AND MENTAL DISEASE. For Use in Training Schools for Attendants and Nurses and in Medical Classes, and as a Ready Reference for the Practitioner. By C. B. Burr, M. D., Medical Director of Oak Grove Hospital (Flint, Mich.) for Mental and Nervous Diseases; Formerly Medical Superintendent of the Eastern Michigan Asylum; Member of the American Medico-Psychological Association; of the American Medical Association; Foreign Associate Member Societe Medico-Psychologique of Paris, etc. Third Edition. Thoroughly Revised, with Illustrations. Pages viii-183, 12mo. Bound in Extra Vellum Cloth, $1.25 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

This is the third edition of this helpful little book. The section of forms of diseases has been re-written in accordance with the newer classification of insanities, and the medical treatment of the insane is carefully discussed, thereby adding to the usefulness of the volume to medical students.

THE ARISTOCRACY OF HEALTH: Mary Foote Henderson. The Harper Bros. New York City. $1.50.

A book which treats with earnestness and ability the question of sane, wholesome and intelligent living. It is a thoroughly practical study of the science of health through hygiene, and teaches people how to be strong, self-reliant, and happy. Several chapters are taken up with the important subject of a proper dietary, one of the necessary aids to good health, and the more common drugs and stimulants are discussed with a full, yet simple explanation of their effects upon the system. All stimulants are associated with physical degeneracy and the argument is supported with forceful extracts from the authorities.

Speaking of the great eras of Greece and Rome, the author says "Man mentally and morally depended upon man physically," which, while to a certain extent true, is at vari ance with the higher laws oflife where character and mind and the spiritual part of a man mean more for the world's benefit than physical strength.

As an argument against the use of stimulants the book is a valuable one and makes for the betterment of the race.

SOME ETHICAL GAINS THROUGH LEGISLATION: Florence Kelley. The Macmillan Company, New York. $1.50.

Those who are interested in social conditions in America are familiar with Mrs. Kelley's valuable work in its various departments and few are so well qualified from experience to tell of what has been done. She is a member of the bar in the State of Illinois and since 1892 she has been in close touch with the Department of Labor at Washington, as special agent for the Bureau of Labor Statistics in Illinois, or secretary of the National Consumers' League. The chapters treated are The Right to Childhood, The Church, The State and the Nation, The Right to Leisure, The Right of Women to the Ballot and The Rights of Purchasers. The question of the right of women to the ballot—or the right of some women, who are tax-payers—and here applies taxation without representation—can hardly be placed at issue, but the advisability of giving the ballot to women, or that women want the ballot, is another matter. In the South the women would not vote, if given the privilege. From a legal standpoint the book is a strong one, and the progress of work for the betterment of the poor and deprived is clearly shown.

SURGERY: Its Principles and Practice. In five volumes. By 66 eminent surgeons. Edited by W. W. Keen, M. D., LL. D., Hon. F. R. C. S., Eng. and Edin., Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Phila. Vol. I. Octavo of 983 pages, with 261 text-illustrations and 17 colored plates. Philadelphia and London: W. B. Saunders Company, 1906. Per volume: Cloth, $7.00 net; Half Morocco, $8.00 net.

The first volume of the new Surgery, edited by Dr. W. W. Keen, of Philadelphia, gives promise of a work that will most adequately represent all that is best in surgery as it is practiced today. Expressing not the thought and theories of one country but of the world, it so thoroughly and completely covers the whole field of surgery and with such a wealth of detail that no medical library can be complete without it. Every chapter is the work of a renowned specialist, the entire book being written by the leaders of modern surgery. A glance at the list of authors convinces one that Dr. Keen has succeeded in securing as contributors men whose names are specially associated with the subjects upon which they have written. Although the work is thoroughly modern, in every sense "up to date," yet there are recorded very few, if any, of the passing surgical novelties or what might be called fads in surgery.

THE MASTERS OF FATE. By Sophia P. Shaler. Duffield & Co., New York. $1.50, net. Postage, 10c.

The spirit of a hero is throbbing through this book; it is made up of a series of stories of those who have mastered fate and made the most of life when defeat looked inevitable. It is a heartening book, and is a new and forceful evidence of the old truism—Where there's a will there's a way. The problem of life is a problem of self-mastery. He that ruleth his own spirit is greater than the taker of cities.

The author is the wife of the late Prof. Shaler, of Harvard University, one of the noble army of the handicapped, who met life with a rare sweetness and strength.

It is an inspiring book.

QUIZ COMPENDS. GENITO-URINARY DISEASES AND SYPHILIS. Charles S. Hirsch, M. D., Jefferson Medical College Hospital, Philadelphia. P. Blakiston's Son & Company, 1012 Walnut St., Philadelphia.

The little book epitomizes the mass of matter in the standard text-books, and will aid the student in mastering the important points in the diagnosis and treatment of the diseases covered. Unnecessary details and extremely rare affections are omitted. The description of the surgical anatomy of the organs precedes the technique of the various operations. It is a most excellent treatise and will be a valuable aid to the careful reader.

GENITO-URINARY DISEASES AND SYPHILIS. By Henry H. Morton, M. D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long Island and Kings County Hospitals, and the Polhemus Memorial Clinic. Illustrated with 158 Half-tone and Photo-engravings and 7 Full-page Colored Plates. Second Edition, Revised and Enlarged. Royal Octavo, 500 Pages. Bound in Extra Cloth. Price, $4.00 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia, Pa.

The Charlotte Medical Journal expressed its great appreciation of the first edition of the book, and the rapid strides that Medical Science in general, and Genito-Urinary Surgery in particular, has made since that edition first appeared has made a careful revision necessary. Many chapters have been re-written and much new matter has been added to bring the book fully up to the present advances. The illustrations are most effective; the style is concise and clear; the mechanical make-up of the book is an evidence of the value placed upon it by the publishers. The field covered is an important one and the writer brings a large experience and a trained mind to the presentation of his subjects.

Abstracts of the Leading Articles of the Month.

Rickets as a Racial Disease.—Hausemann (Berlin. Klin. Wochensch.) regards rachitis as an affection of the bodily metabolism rather than as a disease of the bones. There is present a disposition to lung troubles as well as intestinal catarrhs, and a mild form of internal hydrocephalus, which causes spasm of the glottis and convulsions. Rachitis occurs in animals as well as in man, a fact which is of great importance in suggesting its etiology. Uncivilized races do not shew any evidence of it. The Japanese, who live in airy houses and wear loose garments, do not suffer from rachitis. The true etiology is the racial factor. It occurs in those races who are shut up in houses, who wear tight clothing, and who do not take enough out-of-door exercise. In civilization the rachitic child grows up and propagates its species, and its offspring

have an increased tendency to the disease, so that we are continually increasing the liability of the race to the disease. We must fight against the disease by increasing the out-door life and exercise for our rising generation, at the same time nourishing them as well as possible if we wish to decrease the number of cases of this disease in years to come.

Cancer of the Rectum.—Martin du Pan (Rev. de Chir.) reviews the work done at Kocher's clinic during the past twenty years, on cancer of the rectum. This report is particularly valuable because it is critical and exhaustive, and because it deals with the subject from the point of view of the methods of a single operator.

Pan's investigation led him to believe that heredity, occupation, constipation, traumatism and hemorrhoids had been accorded too much importance as etiological factors in carcinoma of the rectum. The disease usually begins before the fortieth year, assumes the colloid form, and offers a most serious prognosis. The onset is so insidious, that it is almost impossible to make an early diagnosis. In so-called inoperable cases the patient lives about twelve months after the first symptoms appear, whereas in similar cases which have been operated upon they live five years. Thus the operation is almost always indicated. Situation, involved lymph nodes, and adhesions are not contraindications to operation. Preliminary colostomy should be performed only in rare cases. Amputation of the rectum by Kocher's method is the operation of choice. Kocher's method consists in resection of the coccyx, with a posterior median incision. Great care should be manifested in the after-treatment. Kocher's operative mortality is 14½ per cent. Recurrences occurred in 39.7 per cent. One patient has remained well for fifteen years, after undergoing four operations for recurrences. The number of patients who have remained well for more than three years after operation amount to 25.7 per cent.

Tubercular Arthritis in Children.—Broca (La Tribune Medicale) says that the disease is general rather than local. As soon as possible, consistent with immobilization of the joint, open-air exercise should be taken, and even when implication of one of the lower limbs prevents walking the other limbs can be exercised. Though residence at the seaside is advantageous, it is not indispensable. Hydrarthrosis of the knee in children, not due to injury, is of tubercular origin. After puncturing, to verify the diagnosis by the microscope, the fluid should be evacuated, and 10 per cent. iodoform ether injected and the limb put up in plaster; this allows the patient to be out of bed in from six to eight weeks. After not less than six months the splint may be dispensed with, as the joint is stiff, but not ankylosed. From the very first plaster of Paris is better than silicate of potassium, leather, or celluloid for immobilizing the disease. This procedure, even when an anesthetic is used during the application of the splint, entails less risk of general infection than an open operation or gradual rectification, though a rise of temperature for some days is usual. In disease of the spine or upper limb the use of plaster splints reduces the confinement to bed from two years to six months. As an adjuvant to the use of plaster splints local pressure is beneficial; a window is made in the splint and the affected joint is covered by cotton-wool, firmly bandaged. Every fortnight the joint is examined, and, if required, counter-irritated by iodine or mercury ointment. If the swelling of the joint does not subside, injection of iodoform ether is of service. But it is not desirable to inject strong solution near the joint to act as counter-irritants. Arthrectomy, even of the knee or elbow, is seldom satisfactory; excision is not much better. The most conspicuous indication for operation is the existence of localized accumulations of pus, with or without the presence of fistulæ; in neglected cases septicemic infection may occur, calling for prompt operation to remove the infected osseous foci. The joints should be immobilized as long as swelling and spontaneous pain persist, though with every care temporary relapses are usual before permanent use of the limb is secured. Children are but little tolerant of forced manipulation.

Observations on the Thymus Gland in Children.—Fortescue-Brickdale (The London Lancet) contributes a very important paper on this subject, covering the results of his observations on fifty cases. These were taken consecutively in the ordinary course of pathological work. The author found the average weight of the gland to be 128.7 grains—the smallest, from a child, aged 3 months, weighing 30 grains, and the largest, from a child, aged 10 months, weighing 398 grains. The writer says that the usual weight of the gland at birth is below 100 grains, and considers that larger glands are probably examples of some pathological condition. The normal functional extinction of the thymus gland takes place by a process of fibrosis. In various atrophic conditions this process occurs with great rapidity, so that an estimate of the nutrition of an infant may be formed by an examination of the thymus glands. He examined twelve thymus glands in marasmic infants,

all under one year of age. They were all considerably under the normal body-weight. The average weight of the gland was 38.5 grains, the smallest being 20 grains and the largest 72. There were in all but two cases of marked fibrosis of the organ, the interlobulated septa being much thickened, as was the perivascular connective tissue. The lymphoid cells were also decreased in number, their place being taken by endothelial and young connective-tissue cells. The cortex and medulla could not be differentiated. In the two exceptions the thymus showed only very slight fibrosis in one case and none at all in the other although the lymphoid cells were diminished. Regarding the fibrotic changes which occur in acute diseases, the writer had twenty cases of children dying from such acute cardiac conditions as pneumonia, diphtheria, peritonitis, acute diarrhœa, vomiting, etc. In six cases the fibrosis was either absent or very slight, in three it was present, but badly marked, and in ten it was considerable. In some of these cases other conditions might have accounted for the fibrosis, such as rachitis. When the gland is enlarged, certain symptoms are produced, such as laryngismus and stridulous breathing, and an enlarged thymus is often associated with general hyperplasia of the lymphoid tissues of the body, and not infrequently with rickets. The writer says that enlargement of the thymus and other lymphatic structures in the body may occur as the result of acute toxic absorption or a more chronic condition. He finds, as regards the pathological histology of the gland, that in some conditions, especially tuberculosis, cells with basophile or neutrophile granules seem to replace the eosinophiles. In congenital heart disease eosinophiles are not found in the thymus. True hyaline degeneration very occasionally occurs in Hassall's corpuscles. Fatty degeneration of the cells is common, and appears often to affect the peripheral zone of the lobules.

Radical Cure of Femoral Hernia.—Baldwin (The London Medical Lancet) has been practicing the following operation for the cure of femoral hernia. The author has performed the operation about twenty times; all the wounds healed by first intention and caused no trouble whatever. The method of operation is described as follows: A curved incision about 1½ or 2 inches long is made over the saphenous opening. The sac is isolated and more or less cleared of fat. If not already back, the hernia is reduced. A slightly curved hernia director is now introduced up the crural canal in front of the sac and when its point is behind Poupart's ligament it is moved laterally so as for a short distance to strip off the peritoneum from the posterior surface of the transversalis fascia. The point of the director is now pushed farther upward and tilted forward so as to make the aponeurosis of the external oblique muscle project about half an inch above Poupart's ligament. A small transverse incision is then made through the aponeurosis, parallel to its fibers, on to the point of the director, which is now passed up through the opening. The latter is only just large enough to allow of this being done. A sinus forceps, Spencer Wells forceps, or small nasal polypus forceps—the last, being slightly curved, is more convenient—is now introduced through the opening, passed behind Poupart's ligament, and made to project from the saphenous opening; as this is done the director is withdrawn; in its descent it guides the forceps and prevents it from catching. The fundus of the sac is now seized by the forceps, which is completely withdrawn, dragging the sac out through the opening in the external oblique aponeurosis. The sac is pulled out as much as possible and ligated at the top of its neck. By this maneuver no pouch is left in which recurrence may take place. A suture is then passed through the fundus of the sac, the suture is drawn through to its middle and then tied, thus leaving two free ends of equal length, or this may be done before the sac is pulled up through the opening in Poupart's ligament, the thread being seized by the forceps and used to pull up the sac. If the sac is large, however, the thread may tear out and time be lost. One end is threaded in a strong curved needle, one which will not rotate in the forceps which grasps it. The needle is now passed backward and forward through the sac several times, starting at the fundus and finishing at the neck, as described by Macewen, for puckering the sac. The needle is grasped in forceps, or a needle on a handle may be used, and its point is passed through the hole above Poupart's ligament, through the neck of the sac, down to the transverse ramus of the pubes, then by a turn of the wrist the point is made to slide forward across the pubic bone, as close to it as possible, then to pierce the pectineus muscle and to appear through the inner part of the saphenous opening. The needle is pulled through, bringing its thread with it. By drawing on the thread and by tucking the sac back again through the hole above Poupart's ligament by means of a stout probe or similar blunt instrument, the sac disappears from view and comes to rest in a puckered-up condition behind the transversalis fascia and at the top of the crural

canal, which it effectually roofs in. By this time the other end of the thread is hanging out of the opening above Poupart's ligament. It is tied rather firmly, but not too tightly, to the thread which projects from the saphenovs opening; this fixes the sac in its place, and fixes Poupart's ligament to the pectineus muscle, so obliterating the crural canal. If necessary, a second suture may be put in for this purpose, but nearer the pubic spine. A suture is put in to close the hole above Poupart's ligament and the skin incision is closed. Thus there are three distinct checks against the recurrence of the hernia: (1) The sac is ligatured higher up than is possible by the ordinary method and leaves no peritoneal pouch; (2) the sac is used as a buffer or roof above the crural canal; and, (3) Poupart's ligament is approximated to the pectineus muscle and obliterates the rural canal. It may be urged that the sac will slough and cause trouble. This does not take place. It no doubt becomes vascularized, converted into granulation tissue, and ultimately into fibrous tissue.

In strangulated hernia, when it has seemed safe to leave the sac, and when time was precious, the author has modified the operation by pushing the sac up through the canal, after having made a little space for it as before, and then sutured Poupart's ligament to the pectinus muscle.

The Esthetic Treatment of Fractures of The Clavicle.—Conteaud (Gazette des Hopitaux) says that fractures of the clavicle, from the point of view of absolute juxtaposition and immobilization of the fragments, are, as a rule, unfortunate and disappointing in results. This is especially true when women are the victims of this injury, as slight deformity is apt to be quite noticeable. Numerous appliances have been devised to overcome these results, but all are inefficient. He says that the best treatment is repose on the back in bed with the superior extremity placed over the edge of the bed and held in such a position as to keep the fragments in close apposition. This form of treatment has certain slight inconveniences, as slight edema of the upper extremity, but this last only during the first ten hours. It is necessary to have the complete collaboration of the patient, because at the first revolt on his part all that has been accomplished is lost.

Theray of Bronchial Asthma.—Zuelzer (Therap. d. Gegenw.) Says that the analysis in the Pharmacological Institute of Bonn of Tucker's asthma cure, a proprietary inhalant, showed that it consisted essentially of sodium nitrite and atropin, one gram of the latter to 100 g. of the liquid. The effect of many drugs when absorbed through the tracheal mucous membrane is very similar to the effect when given hypodermically. This leads the author to direct attention to the fact, generally overlooked, that the atropin hypodermically is a very efficient agent in the acute asthmatic attack. It has been shown experimentally that stimulation of the vagus causes a contraction of the bronchial muscle bundles, which is followed by a progressive distention of the lungs. This may be seen by removing, in the rabbit, the intercostal muscles, and observing that the lower border of the lung is gradually pushed down lower and lower. He reports a case in which, probably as a result of intestinal intoxication due to a prolonged constipation, there was orthopnea, expiratory dyspnea, depression of the lower border of the lungs to the right rib in front, slow pulse (60), and a vagus very sensitive to pressure; the picture of bronchial asthma without the piping, musical rales on auscultation. After increasing in severity until the patient was on the verge of collapse, this attack was controlled within fifteen minutes by a hypodermic injection of 1 mg. of atropin sulphate. He therefore, considers the essential character of the asthmatic attack to be a vagus irritation from some cause. The associated inflammation and congestion of the bronchial mucous membrane he considers secondary. The author urges the more frequent use of atropine hypodermically in these attacks as being fully as efficient, more rational, and free from the disagreeable effects of morphine, with which, in case of need, it may be alternated with advantage.

A New Modifiction of the Benzidin Test for Blood.—Schlesinger and Holst (Deutch. med. Wochenschr.) call attention to the importance of careful tests for blood in the stool can hardly be overestimated. It is often by this means alone that obscure cases of gastric ulcer or of incipient gastric cancer can be diagnosed. The usual tests with aloin or guaiac as ordinarily performed are not sufficiently delicate nor entirely reliable, whereas the preliminary manipulations necessary to render them sharp and delicate are complex and troublesome. The benzidin test as described by Schumm, on the other hand, is so exeessively delicate as to give a positive reaction with every normal stood. They have accordingly endeavored to elaborate a method which shall at once be simple and delicate, while at the same time not too delicate for clinical purposes. Their method is as follows:

1. Into about 2 cc. glacial acetic acid drop a little benzidin (Merck) so as to produce a saturated solution. Set aside for a few minutes for saturation to take place.

II. A piece of stool about the size of a pea is placed in a clean test tube filled to about one-fifth its height with water and rubbed up with a glass rod. Heat the emulsion to boiling.

III, Into a clean test tube 10 to 12 drops of the benzidin solution, add a few cc. of 3 per cent. hydrogen peroxide and finally a few drops of the boiled feces.

IV. In the presence of blood a blue color results, unless the blood is present only in the smallest traces. In that case the color is bluish green or green. The reaction is usually instantaneous but may require half a minute.

The test should not be performed until the petient has been put on a diet free from meat for at least three days, since the test has been found positive ,60 hours after the last meal containing meat. Its delicacy is shown by the fact that 10 drops of blood taken with the food suffice to render the test positive with the corresponding feces.

This same modification of the benzidin test was also found to give trustworthy results when applied to stomach contents.

Habit Spasm in Children —Still (London Medical Lancet) prefers the term "habit spasm" as being more descriptive than that of "tic." The most frequent form of spasm is rapid blinking of the eyes or a more forcible closure of the eyelids. This movement was present in 47 per cents. of his cases. Next in frequency come various movements of the face, perhaps most often a twitch of the nose. One or other of these was noted in 48 per cent. Various head-jerking movements were present in 30 per cent. of his cases. The limbs are less commonly affected, the upper being more frequently involved than the lower. In the upper extremity the commonest movement is a sudden elevation of one of both shoulders. Trunk movements are still more uncommon. A common form of habit-spasm is the frequent repetition of some particular sound which may be like that made in "clearing the throat," or a more obvious "hem" or may be of more articulate character, resembling some syllable or word which the child utters in season or out of season in the most inopportune manner. These habit spasms may occur singly or in groups, constituting, as it were, a habit clonus. It is important to note the limitations of these spasms to different parts at different times and the tendency of one form of spasm to change into another after a varying period. A useful diagnostic point is the frequent diminution or total cessation of the spasm while the patient is under special observation. Sometimes these habit spasm are associated with psychical disorders. The author finds both sexes are equally affected. It is most frequent between the ages of six and eight, although common between the limits of five and ten years. Disturbed sleep is very frequent in these children. Headaches, enuresis, "nervous diarrhea," stuttering and urticaria were observed in different cases. Convulsions had occurred either in infancy or early childhood in 7 per cent. of the cases. He emphasize the effect of school life on cases of habit spasm. It is apt to be mistaken for chorea. Rest, change of surroundings, arsenic, bromide, ergot and valerian are useful means in the treatment of this condition.

Cerebral Puncture.—Weitraud (Therapic de Gegenwart.) reports his experience with cerebral puncture, as recommended by Locher, and advocated by Neisser, in the Congress fur innere Medizin held in Leipzig. The technique of the procedure is as follows:

After the skin of the skull has been shaved and disinfected, it is made insenssible in the region selected for the puncture, by means of cocaine injections or ethyl chloride. A drill moved by electricity is then adjusted and bored into the bone. In this manner, a small orifice is produced, through which the brain may be punctured with a puncture-needle of sufficient size, in any direction selected. The author reports four cases in which this method of cerebral puncture was employed. The old orifice in the cranium was avoided whenever the puncture had to be repeated, on account of the exquisite pain caused by this particular procedure.

Collaspse of the Lung.—Macewen, (British Medical Journal) considers that very important subject concerning which physiologists and surgeons are still disputing, namely, the admission of air into the pleural cavity and the collapse of the lung. The author says that this is prevented in a great measure by cohesion of the visceral and parietal layers of the pleura; in fact, he has taught for years that molecular cohesion and capillarity are the principal forces that maintain the expansion of the lung and when collapse takes place these forces can be utilized in order to produce expansion of the lung.

This is a very important point and has a very important bearing on the surgery of the lung. It is interesting to note that it is contrary to the teaching of modern physiologists.

"If the pleural cavity be opened by a perforation from without or by a wound of the lungs from within, the elasicity of the

lungs causes them to collapse, and there arises an air-space between the outer surface of the lungs and the inner surface of the thorax."—Landois.

An opening into each pleural cavity need not be necessarily fatal if the pleura are healthy and a good quantity of serous fluid is present, since the capillarity may be strong enough to oppose the elasticity of the pulmonary tissue.

Tuberculosis in Children.--Squize (British Med. Journal) says that tuberculosis is the most common and most fatal disease in infancy and childhood. In infancy, whatever be the seat of primary infection, it tends to spread quickly and become general. Tuberculosis of the lungs in infants is almost always associated with tuberculosis in other organs. With the beginning of the first year the bronchial glands and lungs are most often affected. With the third year the bones, cervical glands, peritoneum and intestines. After the sixth year or the second dentition the pathological processes tend to resemble those of the adult. Infection of the bronchial lymphatics is a usual halfway house between the entrance of the tubercle bacilli through the respiratory mucosa and their lodgement in the lung tissue. The lung is more often infected before the bronchial glads than is generally supposed. Other points of entry for the bacilli are the tonsil, the adenoid tissue in the nasal pharynx, and the ear, especially when there is inflammation. Children are peculiarly susceptible to unhygienic conditions; the influence of improper food, overcrowding, dirt and neglect are very marked. Pulmonary tuberculosis in children may be divided into the infantile and the adult types. The former consists of a miliary form of the lungs and pleura. Tubercular broncho-pneumonia is also common in children. In the adult type it takes a form very similar to that in a child, but the base of the lung is more often primarily attacked and the signs are often first noted at the root of the lung. Cough may be absent or very slight. Hemoptysis and shortness of breath are uncommon. The physical signs are often most indefinite and the diagnosis difficult. The X-ray may disclose some consolidation not perceptible on physical examination. The writer considers the use of tuberculin for diagnostic purposes dangerous and has discontinued its use. The prognosis must always be guarded, although recovery frequently occurs even in infancy. The younger the child the less favorable the outlook.

As to the treatment, the most important feature is to put the child under proper hygienic conditions- Unless the fever is high and the weakness extreme, the child is much better off if not kept in bed.

The Dechlorination Treatment of Dropsy.—Boyd (Scottish Medical and Surgical Journal) says that his attention was drawn to the important part which chloride of sodium plays in some forms of dropsy by the case of a man suffering from nephritis with general anasarca and effusion into the serous cavities, who took an intense dislike to salt food of any kind, and on examining the urine it was found that the total daily excretion of sodium chloride was far below the average. The author says that Widal has pointed out that with a sodium chloride accumulation in the body œdema results, and this is accompanied by an increase in the patient's weight and an increase in albuminuria. On the other hand, when the chlorides are withheld, the weight and albuminuria diminish, and œdema may disappear. He records the following case: A man, 57 years of age, was admitted to hospital complaining of swelling of the legs, abdomen, and hands. Ten years previously he first noticed swelling of the ankles; in the last four years he had suffered much from dyspnœa, and during that time had been seldom free from œdema of the legs; his symptoms had been severe, and he had been confined to bed for nearly three months. On examination it was found that there was extreme anasarca implicating the whole body. There was effusion into both pleural cavities and in the abdominal cavity. The heart was dilated, the arterial pressure was low, and the urine was small in amount and contained albumen. The patient was kept in bed on a light diet, 1½ pints of fluid being allowed in 24 hours. No medicine was given. The patient's condition got worse. There was an increase in weight and a corresponding increase in œdema. The patient was then put on a chloride free diet, consisting of baked bread without salt, meat, fish, and fowl cooked without salt, potatoes cooked without salt and eaten with fresh butter; the amount of fluid allowed was kept at 1½ pints. During the first 24 hours there was little change in the patient's condition, but on the second day of the diet the improvement began, the pulse pressure fell markedly, and the urinary quantity increased to more than double what it had been on any day during the preceding period. The diuresis was maintained continuously till all œdema had disappeared. The intake of chlorides on the prescribed diet was about 2 grm. in 24 hours. There was an enormous excretion of chlorides, the excretion closely following the excretion of water. Accompanying the diuresis was a corres-

ponding loss of weight; from 190 lb. it fell to 132, at which it remained stationary. After being œdematous for years, the patient, on an altered diet, took some seventeen days to get rid of all œdema and of surplus chloride of sodium in the tissues.

He says that he does not wish to advance the opinion that chloride of sodium alone is responsible for dropsy in all cases. Nevertheless he is convinced from his experience that even in dropsy resulting from severe cardiac and renal disease the withdrawal of sodium chloride from the diet has led to the dissipation of the œdema when every other means had failed.

Some Clinical Aspects of Syphilis.—Wild (Brit. Jour. Derm.) reports his observations on 1000 consecutive cases of syphilis, which were compiled from 1011 cases in which a diagnosis of syphilis was made on the first visit and 39 other cases, not recognized at first but later proving to be syphilis, seven at first diagnosed syphilis proved later to be non-specific. The cases occurred among 20,265 hospital out-patients, giving a percentage of 5.17. In private practice the percentage was 4.95.

There were 76 cases of congenital type, 60 of them, up to two years of age, presenting secondary symptoms, and 16, from three to twenty-six years of age, presented tertiary lesions. The feature of interest was the very rapid response to mercurial treatment; untreated congenital syphilis is one of the most fatal forms of infantile disease.

That the belief that tertiary syphilis in the parents does not affect the offspring is erroneous, is shown by several of his cases, in which women attending with syphilitic infants showed only the marks of former tertiary lesions. He believes mercury more valuable than iodides, as a rule, in congenitally syphilitic older children and adults, even though the lesions be ulcerations of a tertiary type.

In regard to secondary lesions the squamnous papule was the most frequent, and the macular, or roseolar, the next in frequency. The purpuric rash was the least frequent form. The pigmentary lesion of the neck of women, as described by Fournier, was noticed seven times.

The framboesial lesion, or "raspberry form" is not so rare as is supposed, and is frequently mistaken for some other affection. When first seen these lesions are crusted, and on removing the crust the red fungating papule with the "raspberry like" surface is visible, from which the name is derived. The surface discharges foul pus. He regards these lesions as syphilitic papules infected by pyogenic organisms, possibly streptococci. Internal treatment by mercury and iodides is of no avail, unless energetic local antiseptic measures are used.

In studying the proportion of cases which suffer from tertiary lesions, the percentage of the hospital syphilitics was found to be 59.3. As regards the etiology of tertiary lesions he was impressed by the frequency of two factors, trauma and some inflammatory affection of the skin. The injured or inflamed tissue loses its resisting power, and the latent specific virus, if present in the tissues or blood, finds here a suitable soil for renewed activity.

In nearly 600 cases of tertiary syphilis affecting the surface of the body only three showed symptoms of disease of the nervous system.

The difficulty of estimating the relative value of different methods of treatment is due to the fact that most cases of primary and secondary syphilis will recover spontaneously without any treatment whatever.

In ordinary cases mercurials given by the mouth are the most satisfactory, and the dose can be readily controlled so as to produce the required action with safety and certainty. The variety of mercurial preparations is so great that one can always find a salt that can be taken for months together without disturbing the alimentary canal in the most sensitive patients. Injections, inunctions, etc., are good in selected cases.

Rupture of the Uterus, Treatment of.—Eversou, in the Gynecological Medical Journal, says that by far the greater number of cases of rupture of the uterus occur, not in large towns, in hospitals or superior private houses, but among the patients of the general practitioner, in the dwellings of the poor and in the country. In such environment the preparations for operation are too complicated and take too long. To move the woman is dangerous and increased the risk of hæmorrhage and infection, and conservative treatment that can be carried out on the spot is therefore to be preferred. Most of the hæmorrhage in rupture comes from the seat of the placenta and from the tear itself, and after the delivery of the child resembles atonic secondary hæmorrhage. Only in from 12 to 15 per cent. of the cases does the blood come from the parametria and uterine arteries, and consequently plugging is generally sufficient to arrest the hæmorrhage, and laparotomy is not necessary for hæmorrhage in more than from 12 to 15 per cent. of all cases. The second indication for laparotomy, the complete escape of the child into the abdominal cavity, occurs, at the most. in from 7.2 to 16.1 per cent. of all cases; only then is laparotomy strictly indicated, though in practice perhaps impracticable. In all other

cases delivery may be effected through Nature's ways.

The conservative treatment consists in plugging or drainage; doubtless plugging properly effected (that is to say, a firm tamponade of the local field of hæmorrhage) is far superior to drainage, and therefore indicated in atony of the uterus itself, or in hæmorrhage from the tear and parametrium, always supplemented by an external compressing bandage, plugging of the vagina, and bringing and fixing the legs together. According to Klein's statistics, 59 per cent. of (70) plugged ruptures were cured and 81.5 per cent. of (38) ruptures treated by drainage; but the latter were generally slighter cases without serious bleeding. Of 140 women subjected to laparotomy, 53.6 per cent. recovered. Moreover, the results of the operation, where not strongly indicated, were more favorable than where it was so. The mortality was particularly high in women transported undelivered and afterwards operated on, in whom infection was the most prominent factor. The mortality varies directly with the extent and duration of the operative measures in the abdominal cavity. Laparotomy is to be reserved for cases under observation in a klinik. In a very few cases it is possible, under the strongest indications, to recommend the transport of the woman to the klinik, and to perform the operation there; otherwise moving the patient is to be avoided, and the rupture must be treated on the spot by plugging and the application of a firm binder. Even cases in which the bladder is injured also do best with plugging and a retained catheter. Of the methods of operative treatment, total extirpation by laparotomy, wiih suture of the serosa, has recently proved most successful.

Chronic Appendicitis and Early Diagnosis and Treatment of Acute Appendicitis.—Broca (Brit. Jour. of Child. Dis.) says that appendicitis is now usually regarded as the localization of an enterocolitis formerly more extended. The author calls attention to mucomembranous enteritis as one of the predisposing causes, because some have considered that there is a certain antagonism between that affection and appendicitis. The writer has seen children die and others almost die from repeated and unrecognized attacks of appendicitis, because of the evident association of mucomembranous enteritis with that disease. Appendicitis must be regarded as a chronic alteration aggravated by acute episodes. He describes several types of the disease. Some patients have gastrointestinal atony, frequently attended with flatulent abdominal distention, dyspepsia, eructations, obstinate constipation sometimes alternating with diarrhea, capricious appetite, and habitual nausea. They often have stomach ache without known cause and variable in frequency, intensity, and duration. There is sudden, sharp, and not well-localized abdominal pain, with sudden pallor and even a fainting sensation. In these cases there is usually a feeling of weight, an indefinite pain, or at least some degree of uneasiness in the right iliac fossa, and there may be felt a slightly thickened cecum expanded with gases, sometimes an enlarged appendix or lymph nodes. There is usually slight tenderness on deep palpation over McBurney's point, with slight muscular rigidity. Other cases show special and paroxysmal phenomena, especially vomiting, often in the morning only, which may become habitual. There may be obstinate constipation, headache, and retraction of the abdominal wall or meteorism. In these cases the symptoms of dyspepsia with gastrointestinal flatulence are exaggerated continually or by sudden attacks. In another class of cases the infectious element is more marked. Sometimes after too large a meal or without obvious cause there is an attack of indigestion with vomiting and temperature up to 39 to 40 degrees C. (102 to 104 degrees F.) and pain near the naval or in the right iliac fossa, where there is slight muscular resistance to palpation. Beware of those frequent indigestions which mothers treat with an emetic or other domestic medicine, when to the vomitings are joined a sudden fever and colic principally on the right side. Spontaneous pain or that excited by pressure in the right iliac fossa is also important. The rule of French surgeons is to operate immediately if called within the first twenty-four hours after the onset of the first attack; but if called later, to act according to the indications in the individual case, with the idea of calming the attack as much as possible before operating. Conditions in children which must be differentiated are pneumococcic and gonococcic peritonitis, intestinal helminthiasis, pneumonia with abdominal pain, and typhoid. Encysted peritonitis must be operated upon immediately only if an abscess has formed. In doubtful cases medical treatment is indicated: complete deprivation of food, only a few spoonfuls of pure water, ice-bags on the abdomen, careful watching, opium only when specially required for painful colic not explained by an increase of the iliac swelling, and no purgatives. Operation should follow the slightest appearance of peritonitis, failure of temperature to yield, and increase of the local swelling. If vesical pain in passing urine or rectal examination shows pelvic

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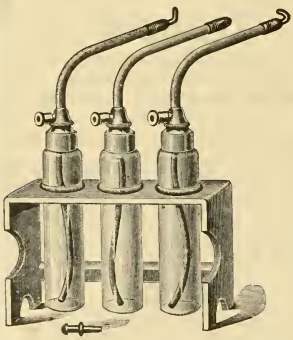

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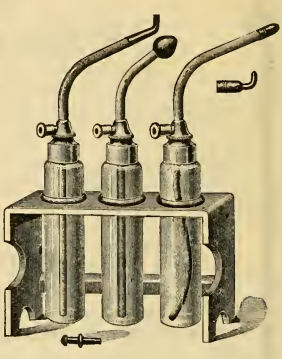

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INDEX TO VOLUME 29.

Original Communications.

Acute Articular Rheumatism, by Dr. E C. Boyette, Mt. Holly, N. C., ... 174
Address of Welcome, by Hon. T. C. Guthrie, Charlotte. N..C.,..... 57
An Imperforate and Obstructive Hymen at Full Term, by H S. Lo't, M. D., Winston Salem, N. C., 61
A Difficult Cranio omy, by Dr. L. C. Keerans, Charlotte, N. C., ... 118
Asphyxia Neanatorum, by Dr. Chas. J. Sawyer, Salisbury, N. C., ... 113
Are we Doing our Duty in Trying to Prevent the Spread of Venereal Disease, by Dr. J. H. Marsh, Fayetteville, N. C.,..... 122
An Unusual Case of Ectopic Gestation, by Charles Z. Candler, M. D., Dillsboro, N. C.,..... 125
A Case of Eclampsia, by Dr. N. D. MacAtan, Ocracoke, N. C., ... 247
Adhesive Inflammation, by J. G. Wallace, M. D., Dade City, Florida..... 289
Broncho-Pneumonia Complicating Measles—Prognosis and Treatment, by Dr. J. G. Busby, Spencer, N. C , ... 193
Cotton-seed Oil in the Treatment of Pulmonary Tuberculosis, by Dr. C. D. Thompson, Lowesville, N. C.,..... 199
Clinical Report on Pseudo-Leukemia, by Dr. W. B. Crawford, Goldsboro, R. F. D.,..... 206
Cholelithiasis, by Dr. Henry F. Long, Statesville, N. C. 71
Carcinoma of the Penis, by Thos. M. Green, M. D.,.. 147
Chairman's Report—State Medicine as now Enforced and how it Should be, by Dr. W. F. Hargrove, Kinston, N. C., ... 145
Chorea Gravidarum, with Report of a Case, by Dr. J. M. Templeton, Cary, N. C..... 142
Clinical Reports (a) Umbilical Fistulae; (b) Two Caesarean Sections, by W. H. Dixon, M. D., Edward, N. C.,..... 238
Eclampsia, with Report of Three Cases, by J. W. McGehee, M. D., Reidsville, N. C.,..... 204
Forceps in Labor, by Dr. L. D. Wharton, Smithfield, N. C.,..... 115
Fatty Degeneration of the Scrotum, with Report of Case, by Dr. J. G. Dean, Dawson, Ga.,..... 292
Goitre, by Dr. Annie L. Alexander, Charlotte. N. C.,..... 225
Heroin Hypodermically, by L. S. Oppenheimer, M. D., Tampa, Florida,..... 293
How to Evacuate the Bladder when Obstructed with Blood, by M. P. Perry, M. D., Macon, N. C.,.... 297
Injury to Hip in an old Patient—Was it a Fracture? by John W. Corbett, M. D. Camden, S. C.,..... 291
Incidental Observations on Hydrophobia, by David Furman, M. D., Greenville, N. C.,..... 231
Immediate and Remote Influences of County Medical Organizations, by Dr. J. C. Grady, Kenly, N. C., 171
Intestinal Indigestion: Its Dietetic and Rational Treatment, by J. E. Ashcraft, M. D., Monroe, N. C.,..... 75
Marasmus, by E. H. Brooks, M. D., Reidsville, N. C., 243
Malposition of the Kidney, by Guy L. Hunner, M. D., Johns Hopkins University
Modern Methods and Aids in the Study and Teaching of Human Anatomy at a Minimum Cost, by Lewis M. Gaines, A. B., B. S., M. D., Wake Forest, N. C.,..... 196
Malaria as Seen in Gaston county, by Dr. T. C. Quickel, Stanley, N. C., 91
Management of the First Stage of Labor, by H. McKee Tucker, M. D., 143
Mitral Insufficiency: Symptoms and Treatment, by Dr. O. L. Ray, Raleigh, N. C., R. F. D.,..... 134
Notes on Puerperal Eclampsia, by Raymond Pollock, M. D., Dover, N. C ,..... 200
Notes on Puerperal Eclampsia, by Dr. W. C. Folger, Dobson, N. C.,..... 126
Obstructions to the Upper Respiratory Tract, by H. H. Briggs, M. D., Asheville, N. C.,..... 62
Ocular Wounds and their Treatment, by J. Lawton Heirs, M. D., Savannah, Ga., ... 296
Once on a Time There was a Man. An Address to the Profession by T. S. McMullan, M. D., Hertford, N. C.,..... 6
Pneumonia, by Dr. J. B. H. Knight, Williamston, N. C.,..... 178
Prognosis of Pulmonary Tuberculosis, by James Sawyer, M. D., Asheville, N. C.,..... 185
Puerperal Eclampsia. by M. R. Adams, M. D., Statesville, N. C.,..... 59
Personal Experiences in the Treatment of Pulmonary Tuberculosis, by Edwin Gladmon, M. D., Southern Pines, N. C.,..... 127
Perineal Lacerations—Prevention and Treatment, by W. F. Mitchell, M. D., Shelby, N. C., ... 140
Report of Surgical Cases, by D. T. Tayloe, M. D., Washington, N. C., ... 281
Response to the Address of Welcome, by Dr. B. K. Hays, Oxford, N. C..... 58
Report of a Case Trephined for Epilepsy, by W. A. Graham, M. D., Durham, N. C.,..... 66
Results of Gonorrhoeal Infection in the Female, by H. B. Weaver, M. D., Asheville, N. C.,..... 73
Remarks on Railway Sanitation, with Special Reference to the Dangers of Present Methods of Disposing of Human Excreta, and Suggestions for Im-
Report of Cases, by Gray G. Holladay, Portsmouth, Virginia,..... 298
Success in Pediatrics and How to Attain it, by E. A. Hines, M. D., Seneca, S. C. 247
Scarlatina, by Dr. Chas. G. Bryant, Roaring River, N. C.,..... 250
Some of the Evil Results of Mouth Breathing, by R. J. Teague, Durham, N. C., 207
Some Points in Clinical Psychiatry of Interest to the General Practitioner, by Isaac M. Taylor, M. D., 16
Some Views on Curettment of the Uterus, by Dr. M. A. Royall, Yadkinville, N. C.,..... 138
Sterilization of Railway Coaches, by H. M. Wilder, M. D , Charlotte. N. C.,.. 297
Some Observations on Head Injuries, by Dr. Le Grand Guerry, Columbia, S. C., 287
Treatment of Acute Articular Rheumatism, by W. H. Anderson, M. D., Wilson, N. C.,..... 241
Therapeutic Nihilism and the Treatment of Pneumonia, by N. P. Coppedge, M. D., Margarettsville, N. C.,..... 228
Tuberculosis, by K. M. Ferguson, M. D., Southern Pines, N. C.,..... 235
The Rational Treatment of Tuberculosis, by William Redin Kirk, Ph.G., M.D., Hendersonville, N. C.,.. 252
The Treatment of Tuberculosis, by Arthur M. Guerard, M. A., M. D., Flat Rock, N. C.,..... 25

The Relations Existing Between the Upper Air Passages and the Lungs, by R. V. Brawley, M. D., Salisbury, N. C., ... 169
The Early Diagnosis of Pulmonary Tuberculosis, by Dr. W. M. Jones, High Point, N. C., ... 180
The Physician and His Relation to Tuberculosis as a Social Problem, by Dr. T. A. Mann, Durham, N. C., ... 123
Treatment of Typhoid Fever, by Dr. J. M. Matthews, Mt. Pleasant, N. C., ... 130
The Open Gauze Method of Administering Anaesthetics, by William Moncure, M. D., 507-8 Tucker Building, Raleigh, N. C., 131
Treatment of Pneumonia, by Lloyd P. Russell, Fletcher, N. C., ... 133
The Use of the Microscope in General Practice, by Everett A. Lockett, M. D., Winston-Salem, N. C., .. 137
Treatment of Teething, by J. Steven Brown, M. D., Greystone Retreat, Hendersonville, N. C., ... 113
Tuberculosis of the Hip Joint, by E. C. McEachern, M. D., Cordova, N. C. 116
provement, by J. Howell Way, M. D., Waynesville, N. C., ... 80
Test Diet in Intestinal Diseases, by Dr. W. O. Nisbit, Charlotte, N. C., ... 64
The Present Status of the Treatment of Cancer—with Report of Cases, by Dr. L. B. McBrayer, Asheville, N. C., ... 67
The Colony Treatment of the Insane and other Defectives, by Dr. P. L. Murphy, Morganton, N. C., ... 84
The Moist Surgical Dressing, by B. R. Graham, M. D., Wallace, N. C., ... 90
The Annual Oration: Nineteenth Century Progress and Twentieth Century Problems, by Dr. Jas. M. Parrott, Kinston, N. C., 1
The End Results—Mental, Physical and Psychic, Following Ablation of Certain Organs and Structures in the Human Body—A Critical Review of 1250 Operations, by J. Ernest Stokes, M. D., Salisbury, N. C. 12
Traumatic Pleuro Pneumonia from Railway Accident, by John H. Miller, M. D., Cross Hill, S. C., 294
The Treatment of Fractures of the Skull—Trephining and Results, by Dr. W. E. Norton, Savannah, Ga., .. 295
The Relation between Neurosis and Traumatism, by Everard Hamilton Richardson, M. D., Atlanta, Georgia, ... 300
The Antipathic Influence of the Normal Body Secretions, by Dr. H. D. Stewart, Monroe. N. C., ... 283
Varicocele, Haematocele, Hydrocele, by E. F. Strickland, M. D., Bethania, N. C., ... 285
Vesical Calculus in the Female with Report of a Case, by Dr. Z. Marvin Caveness. Wakefield, N. C., ... 183
When The Baby Comes, by Dr. Cyrus Thompson. Jacksonville, N. C. 18
Where The Tides Meet, by H. S. Lott. M. D., Winston-Salem. N. C., ... 120

Editorial.

A New System of Medical Teaching, ... 262
Chronic Myocarditis, ... 261
Congressman E. Y. Webb's "Patent Medicine Bill" now a Law, ... 96
Compulsory Emasculation, 152
Dr. W. E. Fitch, ... 262
Dr. James McKee, ... 151
Dr. H. W. Lilly. 154
Dr. R. J. Brevard, ... 98
Entrance Requirements for Matriculating in Medical Colleges, ... 213
House of Delegates—Minutes of the Third Annual Session (Fifty-third of the Society) held in Charlotte, N. C., May 29, 30 and 31, 1906, ... 27
Insurance Fees Again, ... 97
Longevity, ... 264
Life Insurance, ... 209
Medical Journalism, ... 308
Medicinal Treatment of Gall-Stones, ... 95
Mixed Infections with Typhoid and Paratyphoid Bacilli, ... 95
Organotherapy, ... 25
"Patent Medicine" Legislation Needed in North Carolina, ... 214
Prevention of Recurrence after Operation for Malignancy, ... 261
Uric Acid Solvents, ... 20
Reciprocity and States Rights, ... 311
Sources of Error in Urinary Analysis from Drugs. ... 93
Some Further Studies on the Lymphatic System and Tuberculosis. 153
The Drainage of the Faucial and Pharyngeal Tonsils . 153
The Etiology of Tabes, ... 151
Treatment of Ascites due to Cirrhosis of the Liver, ... 307
Tobacco, ... 307
Tulase, the New Remedy for Tuberculosis, ... 308
The Case of Dr. Matthews, 309
The Southern Medical Association, ... 311
The Physiologic Effect of Sea Bathing, ... 20
The Nervous Symptoms of Adenoids, ... 210
The Causation of Bubonic Plague, ... 212
The Robert Bruce Memorial Hospital of Kinston, N. C., 25
The Methods of Collier's Weekly, ... 25
The Influence of Atmospheric Pressure in Disease, ... 263
The Digestion of Fat..... 264
The Prophylaxis of Tetanus 265
The Urine in Hepatic Disease, ... 93
The Transplantation of Organs as a Surgical Possibility, ... 94
Traumatic Epilepsy, ... 97

Editorial Notes.

Any Young Physician, etc., 101
Dr. Daniel F. Ellis. 101
Definition of Practice of English Empiricism, ... 40
Medicine, ... 40
Mississippi Medical College 100
Minutes of the N. C. State Medical Society, Fifty-third annual session, 1906, 35
New Quarantine Station for the South, ... 100
Robert Bruce Memorial Hospital, ... 101
State Medical Society of North Carolina, ... 40
Seaboard Air Line Railway Surgeons, ... 99
The People vs. The Packers 39
The Medical Profession and the issues which confront it, ... 39
The Free Icohol Bill, ... 40
Tuberculosis in Germany, 40
The Boston Meeting, ... 41
The American Medical Editor's Association, ... 41
The Busy Physician, ... 41
The Highsmith Hospital... 100
The American Medical Journal Figures, ... 98
West Virginia State Medical Society, ... 100

Review of Southern Medical Literature.....101, 155, 215, ...265, 312

Book Notices.

A Manual for the Eclectic Treatment of Disease. By Finley Ellingwood, M. D. 43
Atlas and Text-book of Human Anatomy. by Professor J. Sobotta, ... 272
A Text-book of Obstetrics, by Barton Cook Hirst, M. D., ... 272
A Desk Book of Errors in English by Frank H. Vizetelly. 278
Abdominal Operations, by B. G. A. Moynihan, ... 276
Abbott's Alkaloidal Digest, by W. C. Abbott, M. D. 106

A Compend of Materia Medica, Therapeutics and Prescription Writing, by Samuel O L. Potter, M. D., M R. C. P..... 160
A Narrative in Medicine in America, by James Gregory Mumford, M. D....162
A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. by George Whitfield Overall, A. B., M. D..... 162
A Treatise on the Motor Apparatus of the Eyes, by George T. Stevens, M.D., Ph.D.,..... 317
A Primer of Psychology and Mental Disease, by C. B. Burr, M. D.,..... 318
Balzac: A Critical Story. By Hippolyte Adolphe Taine,..... 44
Clinical Diagnosis by Chas. Phillips Emmerson, A. M., M. D..... 160
Childhood; Mrs. Theodore W. Birney..... 161
Coniston, by Winston Churchill..... 161
Chemistry, by John Attfield 278
Cotton, by Chas. W. Burkett and Clarence H. Poe, Raleigh, N. C.,..... 271
Diet in Health and Disease, by Julius Friedenwald, M. D.,..... 276
Diseases of the Nose, Throat and Ear, by Kent O. Foltz, M. D.,..... 110
Genito-Urinary Diseases and Syphilis. by Henry M. Morton, M D.,..... 319
International Clinics, by Dr. A. O. J. Kelly,..... 278
International Clinics, by Leading Members of the Medical Profession..... 110
If Youth but Knew, by Agnes and Edgerton Castle.. 161
Lady Baltimore. By Owen Wister,..... 42
Modern Physio-Therapy. By Otto Juettner,..... 45
Off the Rocks, by Wilfred T Grenfell,..... 106
Obstetrics for Nurses, by Joseph B. Delee, M. D.... 272
Prevalent Diseases of the Eye, by Samuel Theobald, M. D.,..... 276
Polk's Medical Register and Directory of North America,..... 45
Practical Dietetics, by Alida Frances Pattee,..... 110
Quiz Compends. Genito-Urinary Diseases and Syphilis, by Charles S. Hirsch, M. D..... 319
Studies in the Psychology of Sex. by Havelock Ellis, 317
Second Report of the Welcome Research Laboratories,..... 271
Saunders' Pocket Medical Formulary,..... 272
Some Neglected History of North Carolina. By William Edward Ritch, M. D., 42
Songs Merry and Sad, by John Charles McNeill, Charlotte, N. C.,..... 106
Some Ethical Gains through Lislation, by Florence Kegelly,..... 318
Surgery, by W. W. Keen, M. D., LL. D.,..... 319
Transactions of the American Electro-Therapeutic Association,..... 106
Transactions of the Royal Academy of Medicine in Ireland, Dr. Jas. Craig, Editor,..... 110
The Battles of Labor: William Levi Bull Lectures for 1906..... 161
The Prophylaxis and Treatment of Internal Diseases: F. Forchheimer..... 161
The Mystery of the Lost Dauphin. By Annabel Hord Seeger,..... 44
The Life of William Pepper, M. D., LL. D. By Francis Newton Thorpe, 44
The Medical Diseases of Infancy and Childhood. By Alfred Cleveland Cotten, 45
The Diagnostics of Internal Medicine. By Glentworth Reeves Butler, A. M. M.D 43
The Holy Grail. By James A. B. Scherer, LL. D.,.. 42
The Mecklenburg Declaration of Independence. By George W. Graham, M. D.,..... 42
The Dawn of a Tomorrow. By Frances Hodgson Burnett,..... 43
The Phantom of the Poles. By William Reed,..... 44
The American Illustrated Medical Dictionary,..... 276
The Practice of Gynecology, by W. Easterly Ashton, M. D., LL.D.,..... 276
Transactions of the Twenty-eighth Annual Meeting of the American Laryngological Association,..... 271
Transactions New Hampshire Medical Society,... 272
Transactions of the American Gastro-enterological Association,..... 272
Transactions of the Medical Association of Georgia, . 278
Transactions of the American Laryngological, Rhinological and Otological Society. Published by the Society in St. Louis, Mo..... 110
The Ear and its Diseases, by Seth Scott Bishop, B. S., M. D., LL. D.,..... 318
The Aristocracy of Health, by Mary Foote Henderson 318
The Masters of Fate, by Sophia P. Shaler,..... 319
Walter Reed and Yellow Fever, by Howard H. Kelly 160

Literary Notices.

An Experimental Government,..... 278
Alcoholic Dextrins in Some Cases of Marasmus,..... 260
A Pointer Concerning Potass. Iodide,..... 260
A Septic Catgut,..... 280
Acute Leukemia in Infants 280
On the Early Occurrence of Adipocere,..... 25

Abstracts.

A New Sign of Organic Paralysis of the Lower Extremity,..... 46
Albuminuria and the Indication of Labor,..... 46
A Case of acute Septic Pemphigus,..... 47
A Case of Myasthenic Paralysis,..... 47
About Resorption and Phenomena of Immunity,.... 48
A New Modification of the Benzidin Test for Blood, 322
A Plea for Operative Interference in Intracranial Hemorrhages in the Newborn,..... 232
Contributions to the Study of Urticuria Pigmentosa, 47
Concerning the Blood Pressure of Healthy Children, 48
Contribution to the question of Tuberculosis on the Basis of Experiments on Anthropoid Apes..... 49
Carcinoma of the Uterus.. 150
Cancer of the Rectum, ... 320
Collapse of the Lung,..... 323
Cerebral Puncture,..... 323
Chronic Appendicitis and Early Diagnosis and Treatment of Acute Appendicitis,..... 326
Dietary Control of Basedow's Disease 166
Etiology and Treatment of Diabetes 167
Examination of the Blood by Cut Sections,..... 234
Habit Spasm in Children, 323
Observations on the Thymus Gland in Children,.. 320
Prolapse of the Rectum---Pathogenesis and Treatment..... 45
Rupture of the Uterine, Treatment of,..... 325
Radical Cure of Femoral Hernia, ... 321
Resection of the Ovaries, . 150
Rhinoscleroma and its treat-
Some Clinical Aspects of Syphilis, ... 325
Some Clinical Aspects of Syphilis, ... 305
Treatment of Chronic Dysentery, ... 232
Tuberculosis in Children,.. 324
The Dechlorination Treatment of Dropsy..... 324
The Esthetic Treatment of Fractures of the Clavicle, 322
Therapy of Bronchial Asthma,..... 322
Rickets as a Racial Disease 319
Tubercular Arthritis in Children,..... 320
The Significance of Streptococci in Milk 150
Torticollis Wry-Neck..... 162

ment,..... 50
The Enlarged Prostate: Its Nature, Symptoms and Treatment,..... 46
The Treatment of Bardycadia,..... 46
The Treatment of Industrial Mercurial Poisoning,.... 50
Taget's Disease, Concerning its Probable Syphilitic Origin,..... 49
Ureteroureteral Anastomosis,..... 50

localization of the swelling, there should be less delay. The common cases are the peritoneal ones. If the attack has been slight it is well to remove the appendix about a month after it subsides. Diffuse peritonitis requires a long incision in the right iliac fossa, through which one must try to remove the appendix. Almost always one must add to that first incision a median one, and often a third one in the left iliac fossa. The drainage must be very free, with very large india-rubber tubes going in different directions in the abdomen and the pelvis. Sometimes he washes out the abdomen with boiled water or physiological salt solution, but he does not employ this method regularly because not convinced that it improves the always unfavorable prognosis of the operation. Encysted suppurating peritonitis is treated as a simple abscess, by a large opening. The incision is to be made where the abscess is situated, on the right side or on the left, in front or behind. There is a divergence of opinion as to the treatment of pelvic abscesses. Some authors teach that the best plan is to open them by rectal incision. It cannot be denied that these abscesses after abdominal incision progress often worse than others. On the other hand, they sometimes heal spontaneously by discharging through the rectum. In spite of some successes due to that proceeding, it ought not to become general. It is dangerous for the high-situated abscess, which one must search for blindly, with special trocars, and the lower abscesses, which can be felt by the finger near the anus, almost always can be drained through the iliac fossa—sometimes through the left one—where there are swelling and adhesions. It is very rare to find that the appendix goes directly downwards and that an abscess has collected in the pelvis whilst the iliac fossa is entirely free. But when it happens so, the rectal incision may be of real help. After spontaneous or surgical opening into the rectum, the appendix is not treated and frequently gives no more trouble. In cases with localized abscesses the writer removes the appendix only when it can easily be seen under the adhesions. The author ties the appendix and cuts it with the thermocautery. In the delayed operation the absolute indication is to remove the appendix. The writer has finally adopted the intermuscular operation, and if he meets with lesions calling for drainage, cuts the abdominal muscles upwards or downwards.

Treatmeut of Chronic Dysentery.—Meyer (Deutsche Med. Wochenschrift) mentions three cases of dysentery caused by the Entamœba histologica of Schaudinn. As is well known, this form of dysentery is occasionally met with in temperate climates, although it is essentially a disease of the tropics, where it is usually treated by ipecacuanha in doses of 1½ grammes per diem. He has adopted this treatment, with the addition of enemata consisting of 5 grammes of iodoform in 1,000 grammes of mucilage of gum-arabic. The injection is given under considerable pressure, and attempts made by appropriate massage to get it to pass up into the colon. This manœuvre is apparently possible, as it has been observed that the iodoform is often passed as long as ten hours after the injection has been given. The injection should be retained for ten miuutes, and then evacuated. The bowel is then washed out with two injections of plain water given in succession.

A Plea for Operative Interference in Intracranial Hemorrhages in the Newborn.—Carmichael (Scottish Medical and Surgical Journal) says that our attention was first called to the frequency of intracranial hemorrhages in the newborn by Sarah M. Nutt. These hemorrhages occur on the surface of the brain or at the base of the brain and are meningeal. When on the surface they are usually bilateral and are greater over the central region and toward the middle line. The hemorrhages at the base usually surround the pons and medulla, beneath the tentorium cerebelli. The basal hemorrhages are common to breech cases, and these are almost always fatal at or near the time of birth. The cortical hemorrhages are less frequently fatal and bring about various degrees of spastic paralysis, If the treatment is to be efficacious it should be at a time when the hemorrhage is fresh. It is important, therefore, to consider the clinical signs of intracranial hemorrhages in the newborn. In the first place the labor is usually prolonged and difficult. Signs of asphyxia develop soon after the birth of the child, and later there is a manifest difficulty in swallowing. Convulsions may ensue, with persistent rigidity of the limbs and inversion of the thumbs; and again, one or all of the extremities may be paralyzed. When convulsions do not

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terminate fatally they usually cease in a week or two after birth.

A firm, non-pulsating bulging of the anterior fontanelle is an important sign.

Where there is doubt as to the presence of an intracranial hemorrhage a lumbar puncture should be made, because the cerebrospinal fluid will be found to contain blood in the majority of cases.

When the diagnosis is established beyond doubt, one or both cerebral hemispheres are exposed by an osteoplastic resection of the skull, the accumulated blood is washed from the cortex and the flap of bone and soft tissue is replaced and sutured.

The following points are emphasized by the writer:

1. The importance of examining the skull and its contents in all dead-born children, and in those who die shortly after labor with symptoms of asphyxia.

2. Asphyxia is the most common exciting cause of hemorrhage.

3. The advisability of lumbar puncture in all cases of severe asphyxia, especially when the anterior fontenelle is bulging.

4. The importance of early operation in all cases where symptoms persist for a few days, especially when convulsions are present.

Examination of the Blood by Cut Sections.—Buchanan (Liverpool Med.-Chir. Jour.) in order to study the blood from a cytological standpoint, instead of making spread films, fixes, embeds, and cuts sections of blood. The blood is allowed to fall into Fleming's chromo-osmo-acetic strong solution, contained in a thin glass tube 2 to 3 inches long and ½ inch in diameter. The blood coagulates, and it is allowed to fix for not less than two hours, and not more than twenty-four hours. When the supernatant fluid is clear, it is decanted off from the sediment by a pipette, 10 per cent. alcohol is then substituted, the tube centrifuged, and the fluid decanted as before. This is repeated with 20, 30, 40, 50, 60, 70, 80, 90 per cent. alcohol to absolute. After complete dehydration, part of the alcohol is decanted off without disturbing the sediment, and cedar-wool oil is gently added. The alcohol is removed and more oil added until the blood is cleared. The tube is then placed in an incubator at 40 degrees C., the oil removed, and paraffin substituted. Three changes of paraffin are necessary. The final paraffin is solidified with cold water, the tube broken, and the block cut in the usual way, and the sections stained by various methods.

Pot. Iodidi in Neuralgia.—Carter (Liverpool Med.-Chir. Journal) communicates an interesting personal note on the effect of small doses of pot. iod., taken in 5-grain doses at intervals of thirty-six to forty hours, on a neuralgic affection from which he has suffered for nine months. The drug, he finds, begins to be excreted in the mouth in twelve minutes or so, and can still be detected there for about forty hours. His affection yielded to these small infrequent doses very rapidly, and he obtained complete relief, and there has been no recurrence.

Treatment of Infantile Scorbutus.—Hill (Brit. Med. Jour.) states that scorbutus is a perfectly preventable malady. It is entirely due to improper feeding. Condensed milk, sterilized milk, and so on, are often found to have been the cause. Milk, however, has little tendency to produce scorbutus if simply heated short of boiling before being used. When children are fed on articles of diet liable to produce scorbutus, these must be supplemented by anti-scorbutic substances, such as raw meat or orange or grape juice. Meat-juices of the manufactured kinds are useless for this purpose. What is needed is fresh raw-meat juice. When fruit-juice has no effect, then it has been given in too small a quantity. Potatoes have antiscorbutic properties, but they are not so suitable in such cases as a prophylactic remedy. The juice of fruit, moreover, can be given over a longer period without producing any digestive disturbance. Diarrhœa is always a serious complication in such cases, and must be carefully guarded against.

Nephritis, Chronic, Prognosis of in the Young.—Herringham (Edinburgh Medical Journal) speaks of the alarm caused by this disease in young persons, for with them the convoluted tubes, glomeruli, and interstitial tissues are all affected. Dilute urine in these cases is glomerular urine, and this usually means rise of blood pressure and fibrosis of the kidney. Death in these cases may be from exhaustion with dropsy and convulsions, or there may be convulsions and no oedema. The kidneys in the one case are large and pale, in the other are contracted and granular. Nephritis is a disease of temperate climates, especially of those in which the variations are sudden and great. A dry, sunny and warm climate is most suitable for patients with this disease. Diet is of great importance. Meat is not believed by the author to be harmful, alcohol and condiments need not be foresworn altogether. Appetite is the chief thing to be encouraged, but it is always advisable that no more should be eaten than one can assimilate. As to the mode of life, one must not get fatigued, chilled nor wet. Pleasures may be taken in moderation, and

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Some Social Factors in the Causation of Infantile Mortality.—Divine (The London Medical Lancet) states that the three principal factors in the causation of infantile mortality are:

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2. Over-crowding only too frequently includes poverty, intemperance and crime. Moreover, it is in such over-crowded sections that the most dangerous occupations are carried on.

3. High birth-rate. The higher the birth-rate the higher the infantile mortality.

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The Blood in Children with Adenoid Vegetations.—Scheier (Zeitschrift f. klinische Medizin) found the proportion of hemoglobin about 13.8 per cent. below normal in the children with adenoid vegetations whom he examined. The red corpuscles were about the usual number, but there were always from 14,000 to 17,000 white corpuscles, and sometimes 21,000 and 24,000. The small and large lymphocytes were unusually numerous, and the multinuclears somewhat diminished. A slight degree of chlorosis with leucocytosis, especially lymphatic, was the rule. Removal of the growths caused improvement; the hemoglobin rose to 74, 80 or 92 per cent. in the course of from one to several months afterward, while the leucocytosis declined. In conclusion he remarks that the adenoid vegetations in the nasopharynx are not the only manifestations of hyperplasia in the lymphatic system. The lymph glands in the neck and under the jaw are always more or less swollen in these cases. The swelling almost invariably subsides after removal of the adenoid vegetations, and the somewhat low blood pressure rises to approximate normal.

Venesection in Scarlatinal Uremia.—Singer (Jahrbuch fur Kinderheilkunde) advocates venesection as the most rational and beneficial measure in scarlatinal uremia. It is especially indicated in cases showing symptoms indicating irritation of the brain. When there is a tendency to coma and depression, ven section can do no harm, but not much can be hoped from it at this stage. It is applicable to both robust and weakly children. If the pulse is filiform, the internal organs are generally irreparably injured at this stage and the operation is generally useless. Venesection should be done as early as possible, during the first uremic attack. The amount of blood to be withdrawn must be decided by the age, strength and severity of the attack. Venesection can be repeated at need after from twenty-four to fortp-eight hours. Baginsky thinks that from one-fifteenth to one-twentieth of the total amount of blood can be let out without danger.

Therapeutics of Radium.—Lehmann (British Medical Journal) describes the methods by which it may be employed and the effect of its emanations on the healthy tissues and on bacteria, toxins, etc. The emanations of radium, like the X-rays, may produce on the normal skin an intense erythema or even ulceration, which latter heals with difficulty. Schultz concludes that radium has a greater action on the vessels and exercises a deeper effect than the X-rays, and further, that it is more effective in the treatment of malignant tumors of the skin. The growth of bacterial cultures has been arrested by exposure to radium emanations, and anthrax bacilli have been killed by an exposure of seventy-one hours to these. Wounds caused by radium cannot be infected, but an infected wound cannot be disinfected by exposure to radium. After considering somewhat in detail the action of radium on the various organs and tissues, the author proceeds to the uses of this method of treatment in diseased conditions. In lupus good results have been obtained, the resulting cicatrix being white, pearly, and smooth. In psoriasis the applications should be of short duration, and cases have been cured after one seance. About the eighth day after the application the diseased patch becomes of a vermilion color, and towards the third week the lesion begins to disappear. This treatment is only suitable for multiple small patches. In acne and molluscum contagiosum good results have been obtained. The pains of tabetics and gastric crises have been ameliorated, and sensation has returned to previously anaesthetic areas of skin in cases of leprosy. Darier has cured a case of facial paralysis in a few days by the application of radium. In the treatment of malignant tumors by radium the author finds that for two weeks after the commencement of treatment the tumor remains stationary; it then progressively diminishes in size without necrosis taking place. He refers to several cases of epithelial cancer which were cured by this method and mentions cases of cancer of the larynx, esophagus, and stomach, which were benefited. In trachoma the granulations have rapidly disappeared after being touched every day for from ten to fifteen days with a salt of radium. He urges that this method of therapeutics should be extensively employed, especially as its employment is devoid of many of the difficulties which have to be considered when the X-rays are used.

Perforated Gastric and Duodenal Ulcer.—Miles (Edinburgh Medical Journal) says that the liability to perforation is as great in the male as in the female. Perforation usually occurs earlier in females. The prognosis is best in early life. There is usually a history of severe indigestion, but rarely of hematemesis. Premonitory symptoms of perforation are occasionally present. No constant factor will account for the rupture of the ulcer. Almost all gastric perforations are on the anterior wall and toward the lesser curvature. The duodenal perforations are almost invariably in its first part and on the anterior wall. There is usually but one perforation. The size of the perforation varies from a pin's head to

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that of a threepenny piece. Suddenness of onset, overpowering pain, abdominal rigidity, and severe shock are symptoms of perforation. Vomiting is not a common symptom. Percussion gives unreliable information. The seat of maximum pain is a guide for the incision. Apparent improvement is often very deceptive. Opium is a dangerous remedy, as it masks the symptoms. There is no constant relationship between the ensuing peritonitis and the size or site of the perforation, or any other single factor. The abdomen should be opened as early as possible by a vertical incision. It is seldom necessary to open the stomach to find the perforation. An omental graft should be secured over the line of sutures. Excision of the ulcer is not to be recommended unless it is imperative. If the closure of the ulcer has resulted in serious narrowing of the pylorus gastroenterostomy should be performed, or as an alternative, pyloroplasty. The abdomen should be washed out and the head of the bed raised to favor drainage. Saline injections should be given. After twenty-four hours fluids may be given by mouth. Complicating after conditions are temporary gastric fistula, pneumonia, bronchitis, etc. The sooner the operation is performed after perforation the better the chances of recovery.

Clinical Study of Vascular Disease.—Ewart (Edinburgh Medical Journal) says that the study of vascular disease requires a careful elaboration of the elements. A complete and accurate nomenclature is desirable. Uniformity of terminology is imperative since the physiologist, the pathologist, the pathological anatomist, and the clinician must cooperate. More physiology and experimental pathology are required as additions to the pathological anatomy and clinical investigation already contributed. The tendency to merge prevailing divergent types into one title is not conducive to progress. Arteriosclerosis is too large a heading for the practical purposes of clinical definition. A better distinction between the functional arterial diseases and the structural is desirable. It is difficult to distinguish clinically the simulated arteriosclerosis from the true. Separate investigations should be made concerning the capillaries, the arterioles, the sphygmology of the long arteries, and the aorta. Clinical investigations have already been made in connection with the distribution of arterial disease in the various systems of the circulation, in their regional relations to a mechanical and a toxic etiology. The arterial wall offers opportunities for analytical study which have not yet been fully worked out.

Veratrum Viride.—Pesci (British Gynecological Journal) has studied the action of veratrum viride in 19 cases—in 2 of subacute parenchymatous nephritis with uremia, 4 of chronic parenchymatous nephritis, 2 of chronic plumbism, and 11 of arteriosclerosis. The author obtained really good results in only 8, of which 7 were renal processes or complications, and the eighth was one of arteriosclerosis, in which the process was not advanced; there was some amelioration (a decrease in pressure well marked though of short duration) in the others; however, there was little or no good effect, except that diuresis was increased in two of them. He formulates the indications for veratrum viride as follows: (1) In chronic nephritis to prevent and combat uremia and delay heart failure; (2) in chronic plumbism to prevent the colic probably due to spasm of the splanchnic artery; (3) in the primary stages of arteriosclerosis, with the immediate advantage of lowering the blood pressure, and the further benefft of delaying the progress and consequences of the disease.

Avoidance of Ruptured Perineum.—Rudaux (British Medical Journal) believes in disengaging one parietal protuberance after the other from the orifice of the vulva, and of making sure that the occiput is completely free from the pubic arch before allowing the head to extend so as to deliver the face. The necessity of suitable pauses during the expulsive process, so as to profit by the elasticity of the maternal tissues, is insisted on; and, in the case of instrumental delivery, restraining rather than making traction when the suboccipital region has passed under the pubes.

Onset, Duration, and Disappearance of Menstruation.—Schaeffer (British Gynecological Journal) from the consideration of 10,500 cases concludes that the mean time for the first menstrual period is 15.723 years after birth. The onset of menstruation may normally be expected between the thirteenth and the end of the eighteenth year. The average duration of sexual maturity is 30.83 years; when menstruation is established early (ninth to fourteenth years) it is increased to 35.53 years; on the other hand, it is 31.54 years when the onset is between the fourteenth and eighteenth years, and only 28.38 years when the first catamenia do not come on till the eighteenth year or later. The average age at the menopause is 47.26 years.

The Treatment of Scoliosis by the Klapp System of Exercise.—Woodward (Edinburgh Medical Journal) calls attention to the frequent failure of the ordinary exercises to correct scoliosis. He quotes

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Klapp's contention to the effect that treatment should have for its end not only a restoration to normal function, but the production of spinal specialists or athletes, for it is only by a high degree of musculature and mobility that any existing deformity can be overcome, or prevented from occurring.

No movements in ordinary use by man are of any great value. It is, however, quite otherwise with the movements of the spinal column when the gait of the quadruped is considered. If a puppy be observed in walking it will be noticed that the spinal column undergoes very marked deviation laterally with every forward movement of a hind limb. It is the lumbar and lower dorsal regions of the spine which are chiefly influenced by four-footed progression. But more than this is required to remove deformity and give scoliotic patients a movable spine. A still wider range of movement calling into play not only the lumbar and lower dorsal regions, but also the upper dorsal and cervical, can be obtained by various modifications of the four-footed gait. If with every step forward the head be inclined to the side where a fore and hind limb are approximated—i.e., to the concave side—an influence will be brought to bear on the cervical and upper dorsal regions which materially increases the degree of curvature of the spine. And further, this lateral curvature of the whole spinal column can be much exaggerated at each step, by bringing the limbs of the convex side—the widely separated limbs—over to the concave side, the side where hand and knee are approximated. In carrying out this movement the leg of the convex side is made to cross over the other leg. The dorsum of the toes now rests on the ground instead of the knees as before.

Crawling on all fours and the modifications above described allow the greatest possible lateral movements of the spine to take place. The hands and knees are protected while the exercises are being carried out. Suitable gloves may be worn upon the hands, and for the shins and knees a small padded leather trough, provided with straps and buckles, can be easily secured from a saddler. The shoes that are worn should have leather toe-caps to prevent them wearing out quickly, as would otherwise be the case. The clothing is light.

The patient is first taught the correct four-footed gait. Pacing must be carefully avoided—i.e., the progression by bringing the hand and foot of the same side forward at the same time. The child is first taught to crawl in a straight line for a quarter of an hour night and morning. After two weeks this is supplemented by the head being inclined to the concave side as far as possible with each step. After this has been acquired, the patient crawling well, the second modification—i.e., crossing over of the limbs on the concave side—should be practiced. These three separate exercises are persevered in daily for from half an hour up to two hours—one hour in the morning, the other in the afternoon—until four or five weeks have been spent at them.

After this special exercises are ordered to suit the individual need. Thus if there be a case of right convex dorsal scoliosis the patient is instructed to crawl around and around in a circle, always keeping to the right; the object here being to open out the concavity, and stretch the shortened ligaments and muscles to an even greater extent than before.

Massage and hot air are useful adjuvants to these exercises, the latter being applied to the back for a period of twenty minutes before each lesson.

Torticollis.—Tubby (Brit. Med. Jour.) classes wryneck as true and false. Under the head of true wryneck the author considers the fixed, occurring in childhood or congenital, the reflex, and the spasmodic and acute form.

The acute form is the ordinary stiff neck. It is really rheumatism involving the sternomastoid, setting up a certain amount of temporary myositis. Sometimes the acute form is the beginning of spasmodic wryneck.

The reflex form of wryneck is undoubtedly due to irritation, which proclaims its effect through the spinal accessory nerve. The usual causes are enlarged glands from carious teeth or other irritation. As a rule it disappears as soon as the cause of spasm is removed. The fixed form of wryneck is due to alterations of the sternomastoid; it is commoner in males, and is sometimes induced by hereditary syphilis. When the fixed form is associated in an infant with a syphilitic history mercury may be given, combined with passive manipulation of the head, with the purpose of stretching the sternomastoid.

The best treatment, as a rule, is the open division of the sternomastoid, together with the contracted cervical fascia. The incision for this should be made close to the anterior margin of the sternoclavicular muscle, and should be about two inches long. The scar never stretches but remains linear, and is concealed in the anterior fold of the sternomastoid. The head must be held in the overcorrected position. Tubby accomplishes this by a piece of what he calls house flannel, so cut as to reach from the forehead over the head, and down the back to the pelvis. This, soaked in plaster of Paris, is

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bandaged in position. The skin is protected against contact with the plaster by appropriate bandaging. The plaster is kept on for fourteen to twenty-one days, after which the patient may exercise. He should wear a cervical collar for two or three months after operation, so designed that the head is kept in proper position.

The spasmodic form of torticollis is probably due to cephalic lesion, and involves not only the sternomastoid but also often the trapezius. Sometimes the head is jerked violently backward. It sometimes follows severe shock. Section of the spinal accessory and division of the sternomastoid are futile, since the spasm returns in muscles other than those supplied by the spinal accessory. The only operation to be considered is cutting the posterior primary branches of the cervical nerves and removing a portion of them. Both the motor and sensory supply to the back of the neck are thus cut.

False torticollis is that associated with spinal caries, or that which follows cicatrices from burns or wounds in the neck. The head is displaced by reflexly irritated muscles, bony deformity, or pulled over by scar tissue.

Retrodeviations of the Uterus.—Wilson (Australasian Medical Gazette) says that abnormal fixation of the uterus in its retrodeviated position is admittedly an important point in deciding on its treatment. Of 114 cases investigated by Wilson, in 69 the retrodeviation was complicated (more or less fixed), leaving 45 cases in which the uterus was freely movable. To determine the part played in the symptoms complex of uterine displacements, uncomplicated by diseases of the appendages, the writer further analyzed these 45 cases. In 19 instances the symptoms of which the patients complained were more directly referable to some accompanying condition—endometritis, retained decidua, etc.; while of the remaining 26 cases, in whom there was no other abnormal condition present, except the retrodeviation in 23, the symptoms complained of were apparently directly referable to the malposition, some, at least, being mechanically produced by the position of the uterus and adnexa. In any case, such symptoms as menorrhagia, metrorrhagia,

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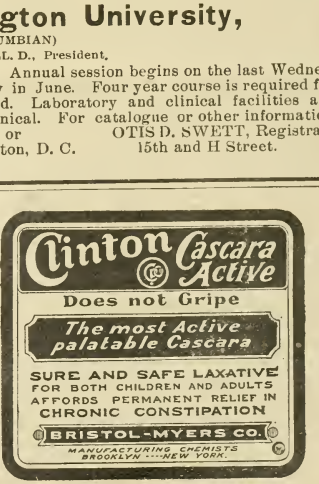

etc., while directly referable to the endometrium, cannot, as a rule, be successfully treated without rectifying the backward position of the womb. From a consideration of these facts it is concluded that although a simple retrodeviation may not in itself require interference, when it becomes complicated by an infective condition of the endometrium, the time for active treatment —not necessarily operative—has arrived. With regard to the ultimate results of ventrosuspension for retrodeviations, the author found that of 35 cases examined at periods of from six months to five years after operation, in 18 the uterus had not retained its forward position. In all of these cases the material employed to suture the fundus to the abdominal wall had been silk, kangaroo tendon, or catgut. So far as pregnancy influences the ultimate result of the operation, it was found that nine of the thirty-five patients had passed through confinements, and in only three of these did the uterus retain its position. A further objection raised against ventrosuspension is the possibility of intestinal obstruction arising, the thinned-out band of adhesion often having been responsible for internal strangulations. He concludes that for uncomplicated cases the shortening of the round ligaments by the Alexander-Adams method is the operation of choice, and that for other cases some of the well-known intraperitoneal methods of shortening the round ligaments, or a combined operation—i.e., opening the peritoneum, and dealing with complications, then carrying out an extraperitoneal round-ligament shortening—should be employed, as in child-bearing women the utilization of the round ligaments seems to be the most rational procedure.

Certain Injuries Commonly Associated with Displacements of the Humerus.—Jones (British Medical Journal) says that the commonest complication of fracture of the upper end of the humerus is dislocation of the shoulder. In his own experience he can count up more than 26 cases. The usual fracture which is thus complicated is of the surgical neck, the patients being usually between forty and fifty years of age. Injury is commonly from direct fall upon the shoulder. The head of the bone map take any position in rotation, or the fragments may be entirely reversed. The deltoid is flattened, and if there is much hemorrhage in the axilla the arm is flexed and slightly abducted. The characteristic symptoms are the absence of the head from the socket and its independence from its shaft. Swelling and pain are unusually severe. Mobility of the shoulder is much greater than in simple luxation. Fracture of the scapula will be indicated by the easy reduction, crepitation, and immediate return of the deformity on the removal of the lifting force.

Reduction must take place at the earliest possible moment, since at this time the fracture usually fails to unite. Reduction may be impossible. No routine method is of service. Jones's most successful method was by forcible extension of the arm held vertically, associated with hard upward pushing of the fragments.

Of 80 recent cases in which manipulation, gentle and forcible, was tried, only thirty-six reductions were accomplished, while forty-four failures occurred.

Only two operations need be discussed: one is excision of the head of the bone, and the other McBurney's. Correct apposition of the broken fragments is extremely difficult, but it is not needful to obtain a practical result. The serious disabilities are incident not so much to resulting deformity as to the injury inflicted at the time of traumatism.

Jones strongly deprecates the wiring of fractures through the surgical neck. He states that he has seen many hundreds of cases of this fracture, and cannot recall an instance in which he thinks wiring would have been of service. He holds that the operation is one of the most difficult in surgery, and that to his own knowledge it has resulted in disaster in the hands of good men; moreover, the successes are no better than the average obtained by simple and safe procedures. To prevent adhesions massage and passive movements should be systematically practiced between the fourth and eighth weeks.

On Certain Bodies Present in the Chancre, in the Condyloma, and in the Blood during Secondary Syphilis.—De Korte, (The London Practitioner) says that the evidence of the infectivity of the blood during the secondary stage of syphilis being very strong, it is essential that the causative agent should be recoverable in the blood during the secondary stage of the disease.

The Spirochœta pallida has failed to satisfy this essential condition.

Having with great care examined the blood of a large number of syphilitics, including most of the types of secondary syphilides, on no occasion has a single Spirochœta either pallida or refringens, been met with. The conclusion arrived at after prolonged search is, that if the Spirochœta pallida be the cause of syphilis, it does not exist as such in the blood.

In the course of this investigation of the blood the bodies were encountered. Of their protozoan nature there can be little doubt; of their casual relationship to syphilis it would be premature to speak. In certain

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forms or phases the parasites can generally be found in the blood, though for their detection several blood-smears at different intervals may be required, and considerable patience expended on the search.

Oval bodies, measuring about 5 μ in length and 2 μ in breadth, are seen. They have a refractile circular nucleus at each end, and midway between the nuclei, placed closed to the cell-wall, a smaller body will be found, having opposite to it some residual protoplasm. At an earlier stage the nuclei are alone present, the smaller intermediate body being apparent in the cell-wall at one end of the oval. Larger bodies, with well-marked ectocyst, measuring 12 μ, may also be encountered.

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The form which occurs most abundantly when stained consists of small, very dark, circular bodies, measuring from 2 μ upwards, and occasionally a small central refractile nucleus can be made out. This form resembles a small air-bubble, for which it may be mistaken. These bodies should be found lying between the red corpuscles, as well as on them.

This form can be found in the blood in most cases of undoubted syphilis during the secondary stage, while the larger forms are correspondingly common in severer cases.

As it is not possible at present to give a complete and connected account of the various stages of this infusorian, only such links as have been elucidated will be described, and the rest left to a future occasion.

The first change detected in this body is the extrusion of two polar bodies (?), possibly prior to fertilization. At a later stage the cyst consists of a hyaline ectocyst and a very dark endocyst. The element next secretes a gelatinous coat, which becomes drawn out as a delicate spoke-like process at each pole. Two small folds occur in the endocyst at one of the poles about the pore or primitive mouth. At this stage the element is about to multiply, and contains in its interior a circular hyaline micronucleus (?), measuring 3 μ; a larger, faintly granular body—possibly a macronucleus—measuring 4 μ; and a pigmented body, intermediate in size.

The endocyst ruptures, the gelatinous coat becomes well developed, and the young progeny escape into it. Some pigment granules can be seen in the region of the pore, while immediately below it is seen a small, circular, faintly granular body.

The next most common element is possibly a resting cyst. The first observed effect of the exhibition of mercury is to cause this cyst to sporulate freely, and finally to bring about the disappearance of all the forms from the blood.

Two distinct bodies will be noticed to escape, a larger body having an epicyst and an endocyst; within the latter there is an irregular, quadrilateral nucleus. On the periphery will be seen a smaller oval body, with thick walls and clear interior. This element becomes gradually larger, retains its oval shape, and certain ill-defined structures appear within it.

Antistreptococcic Serum.—Aronson, (Deutsche Med. Woch.) says that the antistreptococcic serum is not bactericidal directly but increases the action of the leukocytes by changing the character of the bacteria. We offer the suggestion, in the language of the English investigators that the opsonic power of the blood serum is increased by the serum. Hence, the leukocyte apparatus must be intact before any definite therapeutic action of the serum can be expected. In many cases of infection the activity of the leukocytes is impaired and the serum is consequently inert. This authority doubts very much that in operations upon abdominal carcinoma, the injection of antistreptococcic serum will prevent peritonitis, since the leukocyte apparatus is very defective in carcinosis.

Tuberculosis in Children.—Squire (Brit. Med. Jour.) finds this disease the most common and the most fatal in infancy and childhood. In infancy, whatever be the seat of primary infection, tuberculosis quickly becomes generalized; during these years the pulmonary form is almost always associated with lesions in other organs. In the first year of life the bronchial lymph glands and the lungs are most often affected. With the third year tuberculosis of bones, of the cervical lymphatics, the peritonæum and intestines becomes more frequent. After the second dentition (6-7 years) the pathological processes tend to resemble those of adults. Infection of the bronchial glands is a usual "half-way house" between the mucous membranes of the upper air passages and the invasion by the bacillus of the lung parenchyma. Squire believes that the alveoli are infected before the bronchial glands more frequently than is usually supposed. Other points of entry are the tonsils; the nasopharyngeal adenoid tissue; and the ear, especially when there is inflammation. Children are peculiarly susceptible to unhygienic conditions—over-crowding, dirt, neglect and improper food. Squire divides pulmonary consumption in children into the infantile and adult types. The former is in reality a miliary tuberculosis of the lungs and pleura. Tuberculous bronchopneumonia is also common in infants. In the adult type the base of the lung is more often primarily attacked. The signs are often first noted about the root of the lung in the mammary region, the disease having in such cases spread from a caseating bronchial gland. Cough is slight, or may be absent. Children under seven rarely expectorate; hæmoptysis and dyspnœa are uncommon. The physical signs are often very indefinite and the diagnosis correspondingly difficult. The X-ray may reveal consolidation not evident upon physical examination. Squire finds the use of tuberculin for diagnosis somewhat dangerous; and he has discontinued its use. The prognosis must be guarded; however, even in infancy recovery is frequent. The younger the child, the graver is the prognosis. Proper hygienic conditions are essential in treat-

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ment—outdoor life, good food in abundance, cleanliness, and sufficient rest and sleep. Children in whom the disease is not acute are better off for having some lesions; they had best not be kept in bed unless the fever and the weakness are extreme.

Electricity in Constipation and Enterocolitis.—Lebon (British Medical Journal) says galvanic currents of high intensity will cure patients suffering from chronic constipation and enterocolitis. The author's methods are as follows: One electrode is applied to the lumbar region and the other on the surface of the abdomen; or two small plates, well padded with cotton-wool, are placed on the surface of the abdomen, one over each iliac fossa. If the first method be employed neither reversals nor interruptions of the current are to be made; if the second, reversals of the current should be made rapidly, to avoid burning of the skin, which might result from polar action. In all his cases the immediate results of the electrical treatment have been good. In cases of chronic constipation, spontaneous evacuation of the bowels may occur after only one seance. More frequently six or seven seances are necessary before this effect is produced; and the longer the constipation has existed the more prolonged must the electrical treatment be before cure results. Simultaneous with this improvement in the expulsive power of the bowels the motions become softer and of a normal consistency, and patients who have suffered from chronic constipation for a number of years may, when treated in this way, be enabled to have a motion regularly every day, if assisted by some gentle laxative. Failure of this treatment is to be found chiefly in patients who have been addicted to taking strong purgatives, or who have been in the habit of having large rectal enemata administered.

In muco-membranous enterocolitis the results of electrical treatment are no less remarkable, and in these cases treatment should be continued until all mucus has disappeared from the stools. The author finds that the majority of cases require about two months' treatment, and that the cure which results is lasting; if recurrence of the trouble takes place a short repetition of the treatment is sufficient for a cure.

During the course of electrical treatment he stops all medical treatment. The patients are instructed to solicit an action of the bowels every day, and best on waking in the morning. If no action occurs he advises the introduction into the rectum of a glycerine suppository, and that the patient lie down again for a short time, and again attempt to empty his bowels. If this does not suffice he advises the patient the next day to take a dose of his usual purgative medicine, or preferably employ a small rectal oil injection. He says this electrical treatment is most effective when the patient is strictly dieted. In those patients in whom the intestinal trouble appears dependent upon dyspeptic disturbances a mixed diet has a good effect, not only does the intestinal trouble improve, but the fullness after food and the eructations lessen and the appetite improves. In some cases of enterocolitis in which diarrhea alternates with constipation, the electrical treatment soon causes the diarrhea to cease, he finds that the same treatment strengthens and renders firm the abdominal muscles in cases in which these are found soft and lax. To improve the neurasthenic condition from which patients suffering from chronic constipation or enterocolitis are often affected, static baths are advised by the author. The writer states that in cases such as these, if no improvement occurs in two or three months with ordinary medical treatment, electrical treatment should be resorted to.

Some Notes on a Case of Appendicostomy.—Thane (Australasian Medical Gazette) describes the case of a lady of thirty-six, who had been a martyr to the most obstinate constipation since she was two years old. All the usual forms of treatment failed to give any permanent relief, and she developed into a highly nervous, hysterical invalid, to whom life was a burden, and at the same time she became prematurely old. Every week or two she had attacks which she called "bilious," accompanied by intense headache, urgent vomiting, and severe abdominal pain, sometimes in the epigastrium, and sometimes in the right iliac region. In the autumn of 1901 exploratory laparotomy was performed, but as nothing abnormal was discovered, the case was looked on as purely hysterical. For a time she was certainly better, but in three months had relapsed, and was as bad as ever. Up to the end of 1904 she got worse; aperients utterly failed, and only large enemata gave any relief, though she stated that these caused her great agony. In January, 1905, she had almost complete obstruction, only partially relieved by copious enemata. About June, 1905, she was as bad as ever; she was suffering almost constant pain about the cæcum, with the passage of considerable amounts of mucus from the bowels. In August appendicostomy was performed. The organ was 4½ inches long, with a very small lumen. Since then she has every other day given herself injections, composed of 2 pints of water with 1 ounce of mag. sulph. dissolved. These injections moved the bowels freely and without pain at least once some two or three

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hours afterwards, and with much less mucus. The general health is much improved, and weight is being gained.

He mentions the inconvenience experienced by the great tendency of the opening to contraction. If no foreign body be kept in the opening, within twenty-four hours the contraction is so great that only a fine probe can be passed, and then forcible dilatation has to be carried out. The patient was eventually fitted with a small plate carrying a stud ⅜ inch long. The latter fits into the opening and keeps it patent, but it is very liable to slip out on movement. Unfortunately, the stud is a little liable to keep up leakage from the opening, which at times is very annoying; but the patient prefers a slight leakage to the risk of contraction.

Congenital Paroxysmal Cyanosis, with Polycythaemia.—Weber (Edinburgh Medical Journal) mentions the following case: The patient, a girl of sixteen, is rather tall, though thin and weak. Her color varies greatly from time to time; sometimes it is almost natural, but on exertion or excitement she becomes more or less cyanosed. Her lips, nose, and fingers may then become bluish-black, and the cyanosis can also be seen in the eyelids and cheeks, but is less obvious in her ears and toes. There is scarcely any clubbing of the fingers, and none of the toes. The apex-beat of the heart is in the fifth space, just inside the nipple-line. The precordial dullness commences above at the fourth rib, and extends outwards to the apex, and scarcely reaches the sternum on the right. No thrill can be felt. There is a systolic murmur heard all over the heart, which varies in loudness. It is most marked over the central cardiac area in the fourth space. There is no disease of the lungs or abdominal organs. The liver and spleen are not enlarged, and the urine is normal. There is no œdema or distension of the superficial veins. The pulse varies in frequency—84 to 120—and is of rather low pressure. The blood showed 7,352,000 red cells and 17,000 white cells in the cubic millimetre. A differential count gave polymorphonuclears 67.2 per cent., lymphocytes 15.6, intermediates 6.4, large hyalines 7.6, eosinophiles 2.8, mast cells 0.4. The red cells seemed quite normal, no variation in size was observed, and no nucleated cells. Hæmoglobin 130 per cent. Her birth was natural and at full term, and no blueness was noticed until she began to walk at the age of two and a half years. The blueness always varied much in degree from time to time, and was increased by any physical exertion or any mental effort. The author says that the only way to account for the symptoms is to suppose that there is an abnormal aperture in the interventicular septum, with fairly equal development of the muscular walls of the two ventricles. The variation in the degree of cyanosis may be due to varying obstruction in the pulmonary circulation. Spasm of the muscular infundibulum of the pulmonary artery has been suggested as a possible cause in a similar case by Marey. This case confirms the old view that cyanosis in congenital heart disease may be due, not to any sluggishness of the circulation, but to the admixture of venous and arterial blood, owing to abnormal communication between the two sides of the heart.

An Exception to Colles's Law.—James (Intercolonial Medical Journal of Australasia) reports the case of a patient aged thirty-nine who was bitten by her baby on the areola of the right breast on December 18. About January 4 a blister appeared at the site of the bite; it became painful and ulcerated, and was associated with a tender gland in the axilla the size of a bantam's egg. On January 22 she had a typical roseola, some thinning of the hair, hoarseness, mucous patches on the inside of the cheeks and on the tongue and lips, some bone pains, and general glandular enlargement. She was put upon mercury, but on January 25 a papulo-squamous rash appeared on the legs and arms, and a reniform ulcer on the right tonsil. The case was an undoubted secondary syphilis, and the baby also presented all the typical signs of congenital syphilis. The chancre, although it was large, healed completely under mercury in seventeen days. The woman had no primary sore elsewhere; she nursed no other child but her own, no one ever touched her breast, and she wore no other clothes but those she had worn for weeks. All who saw the case agreed with the diagnosis, and James has no doubt about its being an exception to Colles's law.

Chorea and Rheumatism.—Duckworth in the British Medical Journal states that a relationship between chorea and rheumatism has long been recognized. The effects of the toxicity of rheumatism are much more widely spread over the body than on articular or cardiac structures, and the throat and skin or the brain may equally be sites for the manifestation. The pathology of choreic endocarditis is identical with that of rheumatic endocarditis. Rheumatism has been clearly proved to be an infective malady, and the specific causative organism has probably been identified—the diplococcus of rheumatism of Poynton and Paine, the micrococcus of Walker, and the streptococcus of chorea of Wasserman, being all three identical. Although chorea is

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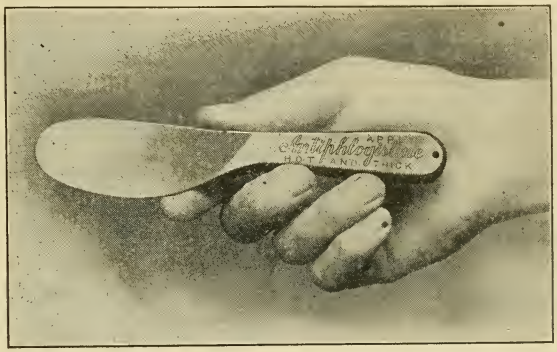

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never caused by nervous shock or fright, yet a neurotic factor must be acknowledged in a true conception of its pathogeny. That the young and the female sex afford the greater number of examples of it is probably due to the fact that in these subjects the rheumatic toxine is apt to spread more widely and to act with greater intensity than in adults. The adolescent brain is also more unstable than the fully developed one. Chorea is distinctly more frequently met with in families prone to rheumatism; it may precede by months or years an attack of rheumatic fever, or may supervene during an attack. The disease occurs markedly among the nervous or unstable members of a family. It is thus a true cerebral rheumatism. It is certain that there is something specific in the nature of the rheumatic toxin as introduced by the particular infecting microbe. It is probable that the toxin varies in the quality and degree of its virulence.

Stenosis of Pylorus successfully treated with Thiosinamine.—Caudwell (British Medical Journal) reports a case of hypertrophy of the pylorus due to long-continued ulceration cured by the hypodermic use of this drug. Ten minims of a 10 per cent. solution in alcohol were injected daily for a week, then three times a week for six weeks, then twice a week for a month, then 15 minims once a week for another month. Within a month the patient was much better. At the end of three months one could still detect a small tumor of the pylorus. The treatment was commenced on January 23, 1905, and by December the tumor had entirely disappeared.

Miscellaneous.

Dr. R. G. Olsen, of Muskegon Heights, Mich., says: "Sulpho-Lythin is the best anti-toxic agent I have ever used in bowel complaints. In my experience it is far superior to calomel or any other agent of a like nature."

Dr. William F. Varcoe, 232 West 22nd street, New York City, says: "I have found Sulpho-Lythin a useful remedy in acne and funucular conditions given in teaspoonful doses three times a day."

Hemorrhoids.

Without any comment on the nature, causes, varieties or pathological conditions found existing in rectal ailments, I will transcribe from my records two cases of hemorrhoidal troubles that I have treated within the last two years with Glyco-Thymoline.

Case 1.—Mr. B. O. H., age 29, had been ailing several years with what he called piles. A careful examination revealed the following condition: On the margin of the anus were three strangulated tumors about the size and color of a Concord grape. On continued pressure the tumors would empty themselves almost entirely but refill again in the course of an hour. Several similar tumors about the size of a pea were found just inside the sphincter. Anal moisture and pruritus were very troublesome, but singularly enough little pain was complained of. The bowels were somewhat constipated. Regulated the diet and secretions, gave an enema of two ounces of a fifty per cent. solution of Glyco-Thymoline every night and morning quite warm, held in until absorded, and applied gauze to anus on lamb's wool during the night and as much of the day time as he could spare from his office. A decided improvement was noted in a week, and three weeks later he was cured. That was nearly two years ago and there has been no trouble since.

Case 2.—Mrs. R., consulted me regarding "bleeding piles," which had been gradually growing worse for three or four years. At every stool she would bleed two or three tablespoonfuls. She had become quite anemic. No external tumors. A corroding ulcer as large as a nickel was diagnosed just inside of the internal sphincter. Washed out the rectum three times a day at first with a warm solution of boric acid and then gave an enema of one ounce of Glyco-Thymoline full strength hot, held in until absorbed. After four doses only two enemas a day were used as no blood was passed. At the end of two weeks' time a careful examination of the rectum showed it to be perfectly normal. She was cured. No return after eight months.—By Elmore Palmer, M. D., Buffalo, N. Y., Ex-President of the Western New York Medical Society.

The New Orleans Polyclinic, now constituting the post-graduate department of Tulane Medical College, opened most auspiciously for its 20th annual session on November 5, 1906. There are already a number of matriculates enrolled from Louisiana, Texas, Indian Territory, Alabama and Oregon.

Just How to Manage Otorrhoea.

Otorrhœa, from purulent middle-ear catarrh, the "running ears" of the laity, was at first my *bete noire*. I used the classic treatment of Pomeroy and others—syringing, insufflations of powdered boric acid, etc., sometimes with *benefit*, sometimes the reverse, but never by any chance *curing* any of them, until I dreaded to see a patient with cotton in his ears come into the office. Now I cure them in a few days or weeks without difficulty, and really prefer this class of cases to any other. When I was at the Manhattan Eye and Ear Hospital in 1890, Dr. Pomeroy said that one case had been under treatment nearly ten months and was slightly improved. He said that it required one or two years to cure this disease, and then it generally returned.

My method of treatment is as simple as it is effectual, and any doctor after reading my description attentively can use it as well as I can and cure every case. Once daily I fill the ear with a warm solution of some good peroxide of hydrogen, beginning with a 25 per cent. solution, and increasing the strength every day until the pure drug is used. Hydrozone is the same, only twice as strong, and I use it when I can get it simply from motives of economy. After cleansing the ear thoroughly, which at first may require from twenty minutes to two hours, according to the foulness of the auditory canal, I then instill a few drops of Glycozone (warmed) and close the canal securely with a bit of absorbent cotton. This is allowed to remain in *situ* until the next treatment.

The first cleansing should be very thorough, the peroxide being repeatedly instilled until all foaming ceases. In some cases it may require two, three or more treatments to cleanse the ear properly, especially if the lumen be occluded by a furuncle, or by swelling, or inspissated discharge. Do not be discouraged by any little difficulty like this,

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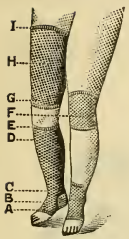

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keep right on and you will finally succeed in getting the ear clean. After that, it is plain sailing. Thenceforth the daily treatment need not consume more than ten to twenty minutes. It is better to treat the case every day, but I have had good success with patients who could not come oftener than once a week. Do not give the patient medicine to use at home and expect to cure him; and never tell him what you are using.

In children who dread the procedure, I do not attempt much the first time or two, but strive to win their confidence, which is not ordinarily difficult, as the treatment is not at all painful and is always followed by a certain sense of relief, so that children who were in mortal terror of me at first will, after a few treatments, come to me of their own accord. Even babies of one and two years who would not suffer me to touch them at first, after experiencing the grateful relief afforded, will place the head on the chair in the proper position and gladly submit to the treatment.

When the diseased ear has once been thoroughly cleansed I consider my work as half done. Thenceforth improvement is usually very rapid, even old inveterate cases yielding in a few weeks. Relapses occur, but are easily managed, and I have seldom

had a second relapse. Of course, mastoid disease, necrosis, polyps, etc., must receive appropriate treatment; but I have no hesitation in saying that all simple, uncomplicated cases (which include the vast majority of all cases under one year's duration) may be cured by this treatment if it is properly and thoroughly carried out.

Care must be taken to have the medicaments warm and not too hot—100 F. is about right—and to always stop up the ear with a bit of aseptic cotton before permitting the patient to leave the office. Be careful to use a piece of cotton of just the right size to securely close up the meatus; if too large it will work out, allowing the solution to escape and leaving the ear unprotected; if too small it will slip back into the canal and so fail of its effect.

Never syringe the ears in otorrhœa; it is risky and usefess. I usually drop a little warm solution of sodium borate—5 per cent.—in the ear to prevent a slight stinging which sometimes ensues when active steps are taken. I also dry out the canal with cotton on an applicator, but this should be very carefully done with speculum, and the canal well lighted. These points are non-essentials, merely refinements which render the treatment a trifle more pleasant, perhaps, that is about all.

The general health will probably require overhauling, indications being met as they arise. It is a good idea to regulate and antisepticise the bowels as a routine measure, using salines and intestinal antiseptics—e. g., the sulphocarbolates as needed. In the South especially, malarial and other miasmatic affections will often need looking after; also any other existing disease may require attention, but it is presumed that the practician will know how to handle these.

We all ought to try to help each other; not one of us but has much to learn; and in these brief talks it is my principal aim to set an example for the rest, hoping my little crumbs may some day come back to me in the shape of seasonable aid from some brother who has a few pointers himself and, like me, is willing to "whack up."—By F. E. Burgevin, M. D., of Spiro, I. T. Published by The Kansas City Medical Record, July, 1906.

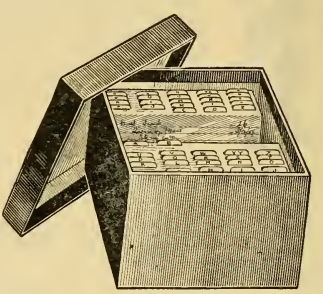
Getting Prompt Digitalis Effects.

At a stated meeting of the New York Academy of Medicine, October 16, 1906, a valuable paper on the "Comparative Action of Digitalis and Strophanthus" was read by Dr. A. Hatcher. Some of the chief points developed by the writer were that in all probability strophanthus would never rival digitalis; that the insolubility of digitoxin was against its use; that digitalin in large doses was rapidly excreted by the kidneys. In the discussion following the presentation of Dr. Hatcher's paper, Dr. H. P. Loomis remarked that strophanthus was used comparatively little today as compared with ten or fifteen years ago, and he expressed the belief that strophanthus would never take the place of digitalis. Dr. Theodore Janeway, in participating in the discussion, believed digitalis to be the mainstay in cardiac therapeutics.

The discussion in its entirety followed a trend familiar to those who have carefully studied the therapy of digitalis. That is, there were statements indicative of confidence in the ultimate physiological action of digitalis, but these statements were usually coupled with others regarding unreliability in effect and slowness in action of digitalis in its older forms.

In connection with these statements it will not be amiss to refer to Digalen—Digitoxinum Soluble Cloetta. This medicament is now considered to be a long step forward in the therapy of digitalis. It is stated by careful observers that Digalen provokes no gastric disturbances, is non-cumulative in action, that it allows of exact dosage and produces prompt effects. The point mentioned last is assuredly important, and in regard to it Dr. F. Schwyzer, New York, makes this statement in Medical News, Nov. 18, 1905: "Per os it (Digalen) acts much more quickly than the powder; hypodermically (deep into the muscles), in a few hours; intravenously, at once."

The Card System for Keeping Records and Accounts.



The keeping of records and accounts is a most irksome duty to the active practitioner. No matter how busy or exhausting the day, they still remain to be attended to. Sooner or later they are slighted, and slipshod methods and confusion follow.

The "Card System" revolutionizes this state of affairs. It eliminates all the disadvantages of books, and makes each record so comprehensible and easy of reference as to give it a new value.

In lieu of the physician's memorandum book, case history book, cash book, ledger, and what-not, the card system substitutes two cards—case history card and ledger card. One card is used for each patient.

Impressed with the worth and practicability of these cases, the Angier Chemical Company has developed a complete case, designed especially for physicians, and so arranged as to take care, in the best possible manner and with the least trouble, of his records and accounts.

The first of January is the most convenient time to change from books to the card system, and as the Angier Chemical Company (Allston District, Boston, Massachusetts), is making a special advertising offer and low price for these history and ledger card outfits, we advise our readers to write them (mentioning this journal) for sample cards and details regarding their attractive offer.

The attention of our readers is called to the advertisement of Robinson-Pettet Company, which appears on page XVIII, of this issue.

This house is one of long standing, and enjoys a reputation of the highest character.

The preparations referred to, we commend specially to the notice of practitioners.